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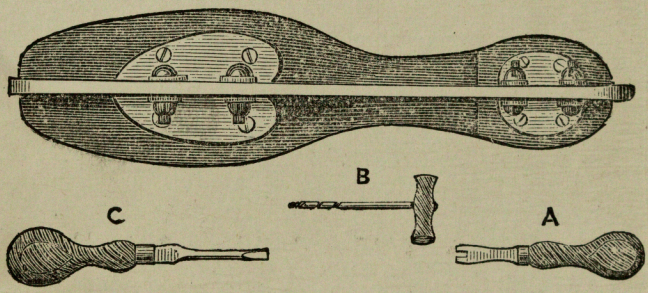


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*WITH A CHAPTER FOR LADIES*

BY

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*AND ONE ON SPEED SKATING*

BY N. G.

**REVISED EDITION.**

LONDON:
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# PREFACE.

THE arrangement of this book is very much on the same lines as Messrs. Vandervell and Witham's work on figure skating, the fact being that the preliminary figures must be mastered in a regular rotation, figure must follow upon figure as the skater progresses in the art.

I have to thank Messrs. Vandervell and Witham for the assistance they have rendered by allowing me to copy certain diagrams from their work.

With kind permission from Mr. Montagu S. F. Monier-Williams, I have reproduced his first set of combined figures and alternating calls, from his work, "Combined Figure Skating."

A well-known Fen skater has favoured me with a chapter upon "Speed Skating," which I trust may meet with the approval it deserves.

Miss Cheetham has also contributed a very excellent chapter for ladies, in which she describes the beauty of hand-in-hand skating.

I fear this volume is too short to explain all that needs explanation, and must crave the indulgence of my reader for its many shortcomings. I have done my best, in as few words as possible, to give all the main points, and trust the beginner may profit by my endeavours.

DOUGLAS ADAMS.

*November*, 1889.

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# SKATING.

## CHAPTER I.

### INTRODUCTORY.

SKATING, as a fine art, in comparison with other pursuits combining skill and activity, is little cultivated in this country. Not that there is any deficiency of interest in it; but opportunities of practising, being dependent upon the weather, are so uncertain as to debar many people from utilizing them. Most skaters, therefore, remain content with the moderate amount of skill which will allow them to progress forwards on the inside or, at most, on the outside edge.

Now let me impress upon the reader that the difficulties are not always so great as they seem, and that some of them may be overcome without waiting for a frost. If he will take the trouble to study and practise positions whilst merely standing upon an ordinary floor, he will be able to acquire a good deal of necessary practical knowledge, and will afterwards learn many of the movements in much less time than he otherwise would.

The art of figure-skating, especially in combination with other people, is what I have called a fine art, and it has several important recommendations. In the first place, it

requires unlimited perseverance and a large share of pluck to become a first-rate performer; secondly, it gives moderate exercise to every muscle of the body, and, at the same time, places every movement under the most accurate control; and, lastly, it is an exercise which can be carried on to an advanced period of life. I have seen men of over sixty years of age skating combined figures with the greatest enjoyment.

During the last ten years figure-skating has undoubtedly made great progress; figures that were formerly considered impossible, are now skated with ease. Clubs have been started in many of our provincial towns, and have given a great stimulus to the study of combined figures. But the greatest help to figure-skaters has been the Glaciarium at Southport—a real ice rink, frozen by artificial means. For some years it was open every day, winter and summer, giving many skaters the opportunity of learning and perfecting the most difficult figures. I am sorry to say that, from want of sufficient patronage, it has been closed; but I hope to see it reopened, or another made elsewhere.

The enthusiastic skater can, with but little expense and not much trouble, get beautiful skating in Holland; and I should be glad to see parties of good skaters formed every winter in order to go there for practice. Surely some of the clubs now in existence might combine to visit some given place together. In that case, matches between club and club could be arranged, and the immense advantage which competition always confers, thereby insured. If we in England cannot make certain of frost, let us go to Holland and enjoy our sport there.

## CHAPTER II.

### DRESS, BOOTS, AND SKATES.

*The dress* of a skater does not matter much, as long as it fits and is neat. The members of the Skating Club always wear trousers, black coats, and tall hats, in accordance with an old custom; but I think a tweed suit and low hat or cap would be more in keeping. Tight knee-breeches and stockings would look better than trousers, but this is not the fashion, so we must not expect to see it; but, at the same time, I do not see why, as cricketers and lawn-tennis players wear a special dress, skaters should not adopt one also.

The question of the boots and skates is of far more importance, and must be carefully studied. A race-horse badly shod cannot win, nor can skating be done with grace and ease if the boots are not easy and the skates firm.

*The boots* should be of stout leather, not too thick or too thin in the sole, but a happy medium, and should lace up fairly tight on the ankle; the heel should be made quite straight at the back, and not too high. The skater often finds the insteps ache after skating for a while, but this can be avoided by placing a small soft pad between the tongue of the boot and the stocking, over which the boot may be laced tightly.

*The footstock*, and the mode of fastening the blade to the boot, are most important matters. First of all, the skates should be attached to the boot *firmly*—so firmly as to become, so to speak, part of the boot. There are a hundred

ways of fixing skates upon boots, but only one, in my opinion, which is wholly successful, and that is to screw the skates with ordinary screws to the sole and heel of the boot.

When once properly fixed, they ought never to be removed from the boots, which should be kept for skating and nothing else. This entails changing your boots on the ice, but it is well worth the trouble, as you may then be sure your skates are firm. The skater may say he cannot change his boots, as he has nowhere to leave them; and, in that case, he must have a pair of skates that can be adjusted to the boots he is wearing, taking care that these are such as I have already described.

The best footstock, to my mind, is that of the *New York Club* skate. It has a lever movement sideways, and is very firm, and can be removed or put on in a few seconds.

*The Barney and Berry* footstock I do not consider good, as it depends on the inside length of the heel of the boot whether the skate is forward or backward on the foot. It also requires a key, which is apt to be mislaid or lost.

*The Acme*, also, is open to objection on the ground that there must be a certain amount of spring between the blade and the foot, which is bad. It also requires a key to adjust the nuts, which so often get loose. The New York Club skate requires no key, as it is worked in a very ingenious way by a thumb-screw.

The ordinary old screw skate, I maintain, is bad, as there must be a certain working on the screw, and the straps also compress the foot.

Whether the blade is fixed into a wooden or metal footstock makes no difference as long as the skate and boot become one.

I recommend metal fastenings which clamp the heel and sole, in any way as long as they are firm; but the "Mount

Charles" footstock, which is simply a metal sole and heel-plate screwed on to the boot with ordinary screws, is unquestionably the best and firmest.

*The blades* are, however, the most important part of the skate, and there is a great difference of opinion amongst good skaters as to the best blades, as there is amongst sportsmen as to the best sort of gun. A good skater gets accustomed to skate upon a certain blade, and if he changes to another he is not at home upon it, and so condemns it.

The curve and radius of the blade is a matter of dispute, but a seven-foot radius is the one generally used here in England as it adapts itself to the simpler figures most readily; but for loops, cross-cuts, etc., a five-foot radius can be used with advantage. I think a good skater who has mastered most of the movements is wise to strike a happy medium and have the blades ground to a six-foot radius; but not so with the beginner, who will find a seven-foot radius easier for holding the edges,and quite enough curved to make all turns with ease.

Again, the acute-angle, right-angle, and obtuse-angle blades—the latter invented by Mr. Monier Williams, and called by his name—all have their advantages, depending upon the hardness of the ice. If the ice is hard the acute-angle blades are best, as they hold the edge firmer; but if the ice is soft they cut too deep, and cause too much friction, and an obtuse angle is then the best.

But if the skater is skating with obtuse-angle blades on very hard ice, he will find he cannot hold the edge, as there is no grip, and he will be constantly slipping. In England ice is not very hard, therefore I advise striking the happy medium, and skating upon a right-angle blade.

There is a blade called the *Dowler*, invented by Mr.

Dowler of the Skating Club, the speciality of which is that it is thinner in the middle than at the toe and heel, as shown here (Fig. 1) in an exaggerated form—

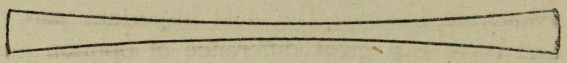


Fig. 1.

I strongly recommend it to the beginner; for, up to the point when he becomes a first-rate skater, he will find it the steadiest and easiest to travel upon. For years I have used it, and still often use it, especially if I am skating the combined figures, as I find it easier to hold the edges with it than with any other.

With this blade it may be noticed that when resting on the flat you are standing upon only a small portion of the blade, but as you lean over on an edge, the extent of the blade in contact with the ice increases, and gives us less friction and greater bearing power than in a straight blade, and the more you are upon the edge of the blade, up to a certain point, the easier you will travel on a curve. In turning upon the heel and toe this blade does not cause any inconvenience; but in loop and grape-vines you are handicapped, but these are not so important to the beginner.

Therefore, in conclusion, let me strongly recommend the beginner to skate upon right-angle Dowler blades, ground to a seven-foot radius, and fixed to a "Mount Charles" foot-stock, and when he becomes an adept skater to adopt any blade that suits him best.

These skates are supplied by Hill, in the Haymarket; and Thornhill, in Bond Street.

## CHAPTER III.

### FIRST STEPS AND EDGES.

THE beginner who for the first time mounts a pair of skates often finds his ankles weak and inclined to give way under him.

I would advise him to fasten his skates firmly, and walk about in the room until he finds that he can stand and walk upon the irons with ease; then, when he uses them upon the ice, he will find himself much more at home than he otherwise would have been.

His first steps should be those of ordinary walking, and, if his ankles do not give way, he will quickly find that he can progress fairly fast.

One of the principal ends to be aimed at in skating is "form." Artistic skating is the movement of the body in graceful, elegant, and easy motion, upon skates, over a surface of ice, and this cannot be attained without very considerable attention at the commencement to the first principles of the art. It is the same in most sports, and many a good man has gone wrong by commencing in a bad style.

Skill in skating is attained by balance of the body. It is essentially a movement of the body; the legs and feet have to follow the body, and not the body the legs and feet. It is the same in waltzing, the steps or feet simply accommodate themselves to the movement of the body.

I presume that the beginner can now walk upon the ice on skates with fair confidence, and desires to strike out and go faster. To accomplish this he will need to lean upon the edge of his skate instead of on the flat, as he has been doing. Let him bear in mind that there are two

edges, the inside and the outside edge, which can be used both forwards and backwards.

Messrs. Vandervell and Witham used certain letters as names for the edges, and, as they have become recognized in the skating world, I cannot do better than adopt them. They are as follows:—

A, inside edge forwards.
B, inside edge backwards.
C, outside edge forwards.
D, outside edge backwards.

In all movements the skater must be upon one or other of these edges, so let the beginner commence by mastering them, in good form with body erect and legs well together, before attempting anything further.

In the following explanations the term "employed" is used to denote the leg or foot on which the skater is travelling, while the "unemployed" foot is the one which is off the ice.

### The Inside Edge forwards, or Edge A.

The inside edge, being the easiest, though by no means simple to do in good form—will be dealt with first.

Let the body be stiff and erect, the head well up, and not looking down at the feet. The skater should feel the back of his linen collar against his neck, he may then be sure he is not looking at his feet. At starting, the body should lean slightly forward from the ankles. The employed knee should be bent to take the stroke, but stiffened as soon as the edge touches the ice. The skater should look in the direction in which he is going, and his shoulders should take the same line as the employed foot, as much as possible; by which I mean that if on the right foot the

right shoulder should be forward, and the left well back—a position that is called half-front.

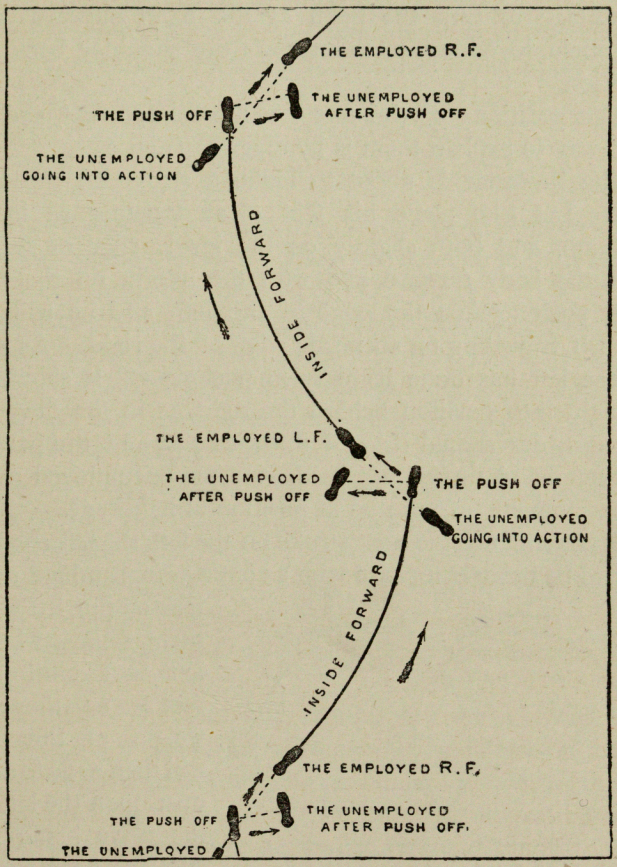



Fig 2.—The inside edge forwards, or edge A. (From the diagram in Messrs. Vandervell and Witham's "System of Figure Skating.")

Presuming that the employed is the right foot, the right arm should be bent slightly at the elbow, the left arm

allowed to hang easily at the side, but both elbows should be kept close to the body, and on no account allowed to swing about. In learning this edge I have found it an advantage to turn the palm of the hand outwards over the unemployed leg, as this throws the shoulder back into position.

The positions of the feet are most important, and the best way to explain them is by diagram (Fig. 2).

The beginner is about to make a stroke on the right foot. Let him place his feet close together as in the diagram, and both slightly on the inside edge of skates; lean the body forward and with the weight on the right foot, push against the edge of the left, and he will find himself travelling on an inside edge of the right. As soon as the left has done its duty in pushing off, it should be brought into position behind the right, as in the diagram; the shoulder should be well thrown back, and the palm of the left hand turned out held over the unemployed at the same moment, so as to be in position of half-front.

To commence the next stroke on the left, the left shoulder should be brought forward with a gentle swing, and not with a jerk or hurried movement, followed by the left foot until both feet are together; the weight of the body will then have to swing over upon the left leg, the body being held stiff but bent slightly forward, with the left knee bent; and a push-off must be given by the right, the left knee being stiffened as soon as well upon the edge, and

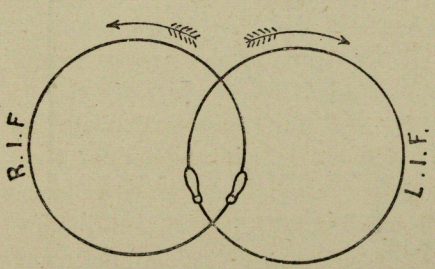



Fig. 3.—Figure 8 on inside edge forwards, or edge A.

a position of half-front to the right taken. By practising this until he can describe large circles on each foot, the learner will conquer the inside edge forwards, or edge A, and will thereby be able to skate the first of the many figure 8's, which consists of a complete circle upon each foot (Fig. 3).

### The Outside Edge forwards, or Edge C.

The next matter to be learned is edge C, or outside edge forwards, one of the most delightful movements, and the great ambition of a beginner.

The skater should now lean over to the outside edge of his skate, instead of the inside, and describe a circle or part of a circle outwards instead of inwards. The positions of the feet are much the same as in skating the inside edge, with the exception that the employed foot should start straight from an outside edge, while the push-off is taken as before from the inside of the unemployed.

The beginner will find that he will require a considerable amount of pluck, and I fear will have several falls before he masters this movement.

The following diagram (Fig. 4) gives the positions of the feet.

Stand with body erect, but leaning well forward with the whole weight on the employed leg with the knee bent, then push off with the unemployed leg, and, as soon as the push-off is made, stiffen the knee of the employed leg, and bring the unemployed behind it, as shown in the diagram. The shoulder must be well thrown back, and the palm of the hand held turned out over the unemployed; the elbows kept to the side of the body, and the toe of the unemployed kept close to the heel of the employed. And thus the skater

will travel until he comes to A, when the shoulder over unemployed is allowed to swing gently forward, and the balance

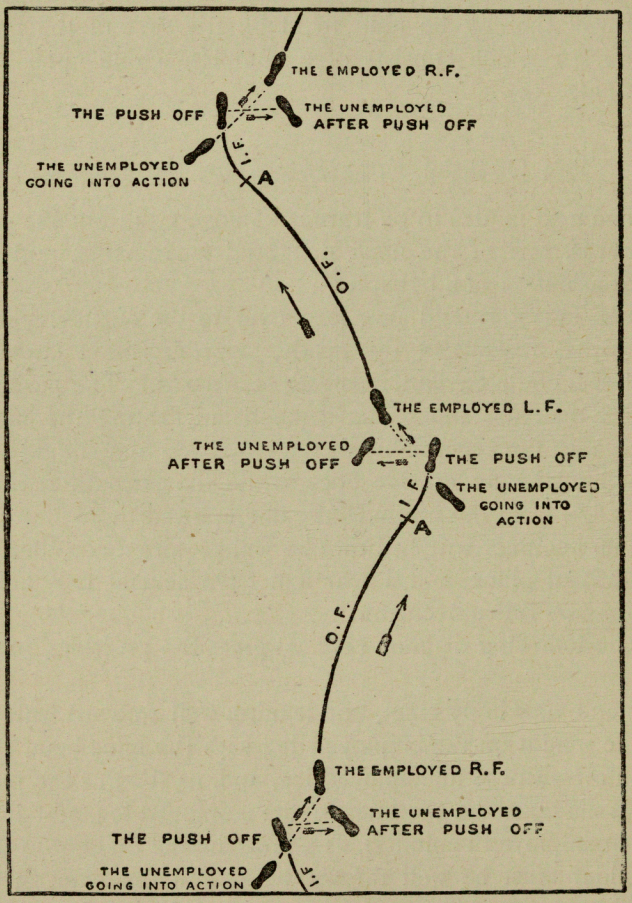



Fig. 4.—Outside edge forwards, or edge C. (From Messrs. Vandervell and Witham's "System of Figure Skating.")

of the body becomes nearly upright, having previously been

leaning forward; the swing is continued, when he will find that he has swung over to an inside edge, and, as soon as this occurs, the unemployed is brought forward and put down slightly in front of the employed, the whole weight of the body being then thrown on to the unemployed, which becomes at that moment the employed, and the push-off from the inside edge of the other foot is made, and the same thing again occurs.

Be very careful about the swing of the body at A, before bringing the unemployed forward; do not do it with a jerk, but with a gentle, graceful, and easy swing.

The head should be held well over the employed leg at starting; but when the skater arrives at A, it should be thrown gently over to meet the opposite shoulder, which will then be coming forward to take the next stroke; and when the push-off is made it should be well over the shoulder of the then employed.

A nervous skater, who does not like to trust himself on the edge, may gain confidence and learn to hold the edge in this manner. Say he desires to make a circle on the right outside edge, he must put both feet on the ice—the right on the outside edge, and the left on the inside edge,—then push away with the left, keeping the right on the outside edge and from time to time lift the left and let himself travel on the right as long as he can hold the edge, then put down the left, and push off again from the inside edge. He will in this way describe circle after circle on the right, which will be skated on an outside edge. He must practise this first on one foot and then on the other; but he must not indulge too much in this mode of practise, as the body will be full front instead of half front, and therefore not in a right position as regards form.

Let it be noted that should the skater find he is stronger

on one leg than the other, he should practice more on the weaker leg than on the stronger, so that in time he may equalize the strength of both.

### CROSS-ROLL FORWARDS.

Another method of skating the outside edge, or edge C, is on the cross-roll, which consists in crossing the feet alternately in front before putting them on the ice. In doing this the learner should not use the inside edge to push off from, but bring the unemployed forward and allow it to cross over in front of the employed. The swing of the body is exactly the same as in the first method, and precedes the swing of the leg. As soon as the unemployed is well over the employed, place it on the ice, straight on to the outside edge, with the weight of the body upon it. At

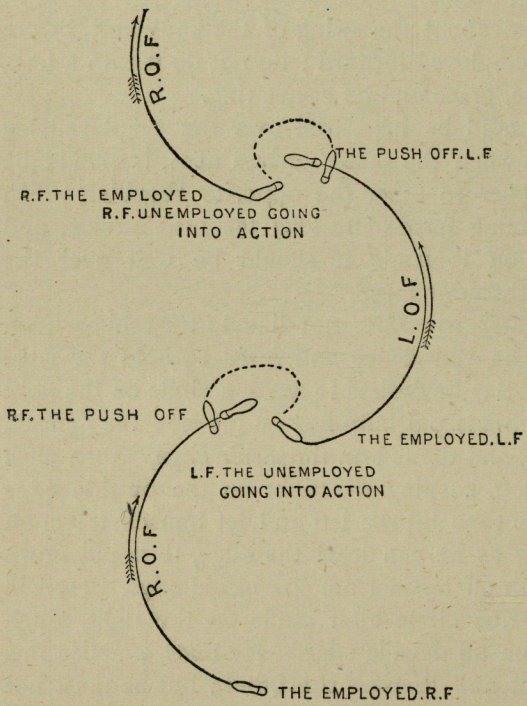



Fig. 5.—Cross roll forwards.

the same moment push off with the other foot, which is still on the outside edge; but as soon as it has pushed off let it be brought into position, viz. with the toe to the other heel, for it now becomes the unemployed: keep it there until you wish to take the next stroke, when it should be brought forward as before, but care is needed that the shoulder over the unemployed be allowed to swing before the leg. The head is swung over to meet this shoulder as in the first method, and the body should be half front.

This is by far the most graceful way of skating the outside edge, and when mastered is a very delightful motion, done in half-circles on alternate feet.

In drawing the diagram of this cross-roll (Fig. 5), I have not quite followed Messrs. Vandervell and Witham, as I think the skater will find that in turning the toe in, at starting the stroke, the curves come more curly and more graceful. In fact, I find turning the toe in is a great help in every way.

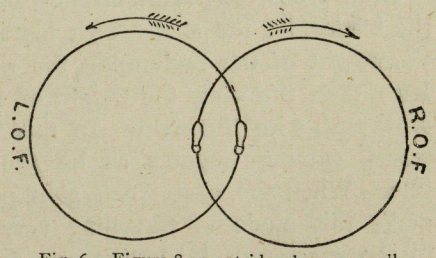


Fig. 6.—Figure 8 on outside edge cross-roll.

By completing the circle on each foot another 8 is performed (Fig. 6).

## Turning on Two Feet.

Before the beginner can learn the inside or outside edge backwards, he should learn to turn on two feet, and proceed backwards. This is a simple and easy matter, and should give the skater but little trouble to learn, if he has already mastered the inside and outside edge forward.

Let him take a few strokes forward, put both feet on the ice, and allow himself to run on the flat of the irons, the body being full front; let his balance be on the forward part of the skates; then, slightly raising the heels, so as to avoid scraping the ice, let him make a turn either to the right or left, when he will find himself proceeding backwards on the flat of his blades. When he has mastered this turn both to the right and left without any scraping, and can proceed backwards on both feet upon the flat of the blades, he may learn to use what is called the serpentine line on two feet.

### Serpentine Line on Two Feet.

After proceeding some distance backwards on the flat of the blades, let the skater turn his ankles in, and, throwing the weight of the body upon the right foot, push with the left; then throwing the weight of the body upon the left foot, push with the right. In this way he will find he can travel, gaining impetus as he proceeds, in a serpentine line. When the skater can gain pace in this way he can make this mode of travelling very graceful and pleasing to the spectators, by letting one foot follow the other on the ice.

As soon as he has pushed off with the left, the weight of the body being upon the right, let the left follow the right in the same line, the heel being slightly raised, but the toe still upon the ice; when the impetus is nearly exhausted he should bring the feet together, and, at the same time letting the weight of the body swing over to the left, push off with the right and let the right follow the left, and so on. Starting with the right he will find himself really travelling upon an inside edge backwards, with the left foot simply following

on an outside edge, but the weight of the body is upon the inside edge of the right; and so he will find this way of travelling a great help when he comes to learn the inside edge backwards.

The diagram will show the position of the feet in this movement (Fig. 7).

The same can also be done forward, but is much more difficult and not so graceful.

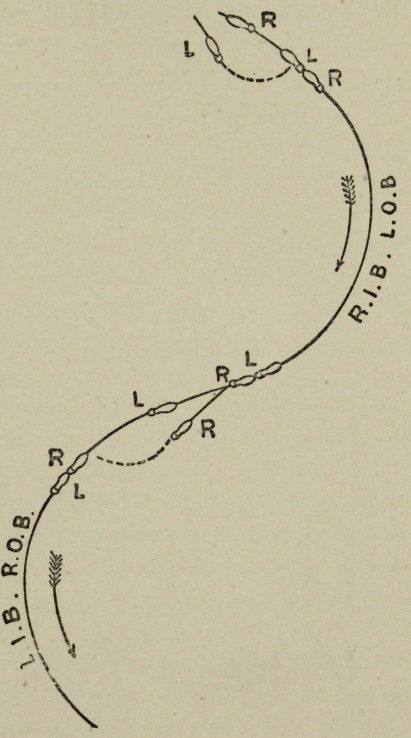



Fig. 7.—Serpentine line on two feet.

### Inside Edge backwards, or Edge B.

To hold this edge in good form with the unemployed in the right position is very difficult, and will need great practice.

Commence with a sharp run forward, then turn on the two feet, and as soon as you have turned let the ankles lean inwards, so that the skates may be upon the inside edge on both feet; hold the edge of the right, the weight of the body being upon the right leg, and push off with the left, lifting it as soon as the push is given, and travel upon the right inside edge as long as you can. When the impetus is gone put the left foot down close to the right on an

inside edge, then push off with the right, and travel on the inside edge of the left: practise this with the body full front, until you can hold the edge fairly well.

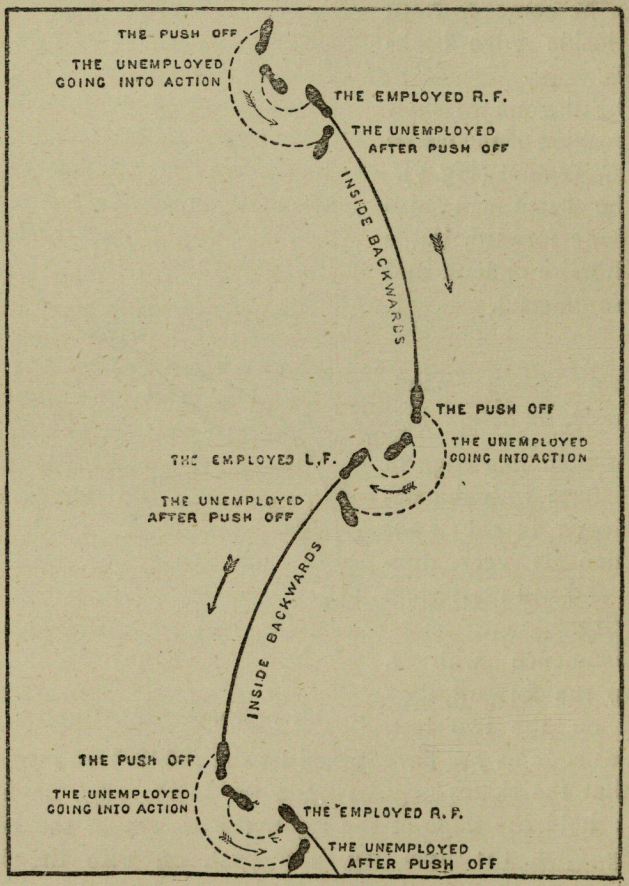



Fig. 8.—Inside edge backwards, or edge B. (From Messrs. Vandervell and Witham's "System of Figure Skating.")

I have said nothing so far as to the proper position of the

body, because I wish the skater first to obtain a good pace with short strokes. When he can do this, and hold the edge for a considerable distance, let him follow the diagram (Fig. 8) as to the position of the feet.

The heel of the unemployed, as soon as the push-off is given, should be placed close to the heel of the employed, the toe of the unemployed well turned out, and shoulder, and palm of the hand over the unemployed, well thrown back, the head looking in the direction in which you are travelling. In this position the skater will find he is able to hold the edge in large curves, which in any other position he cannot do, as the tendency is to come round in small circles. It is also more graceful, and the skater can see where he is going. Presuming he is on his right, in taking the next stroke on the left the left shoulder and head should swing forward, and the left foot be turned round as in the diagram, and then placed on the ice, and a push-off given with the right. The right foot immediately after the push-off must come into position, with the shoulder and the palm of the hand well thrown back, as before, over the unemployed.

The beginner will have to practise very considerably before he can master this position with ease and grace; but it is worth learning, and is most essential in combined figures. In my own case it has always been the most difficult position to master. Turning the toe of the unemployed well out, and the palm of the hand over the unemployed well back, is a great advantage in keeping the

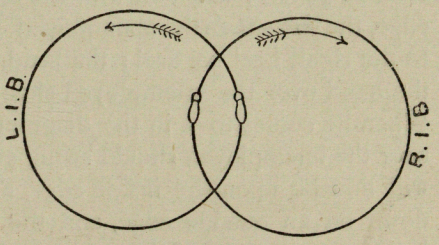



Fig 9.—Figure 8 on inside edge backwards, or edge B.

shoulder back, and so gaining the position required. The figure 8 can be skated on this edge by completing the whole circle on alternate feet, and is very good practice (Fig. 9).

### Outside Edge backwards, or Edge D.

Let the skater take a sharp run forward, and then turn on two feet and proceed backward. To commence with the right foot let him lean over to the outside edge of the right and inside edge of left. The right foot remains on the ice, and the push-off is given with the inside edge of the left, and he will be travelling upon an outside edge backwards until he comes to A in the diagram (Fig. 10). The body then swings gently over to the inside edge; but as soon as he is on this edge let him put down the left, and, pushing off with the right proceed on the left. He should practise this in short strokes until he has attained a good speed, then consult the diagram as to the position of the feet (Fig. 10).

Presuming the skater commences with the right foot, as soon as he has pushed off with the left, which is on an inside edge, the left—then the unemployed—should be brought close to the right, heel to heel; the head, shoulder, and palm of the hand over the unemployed should be well thrown back. When he comes to A in the diagram the head and shoulder over the unemployed should swing gently forward; the right will now be upon the inside edge, and the left must be put down on an outside edge, and the push-off given with the inside edge of the right, which then becomes the unemployed, and is thrown back into position with the shoulder and head.

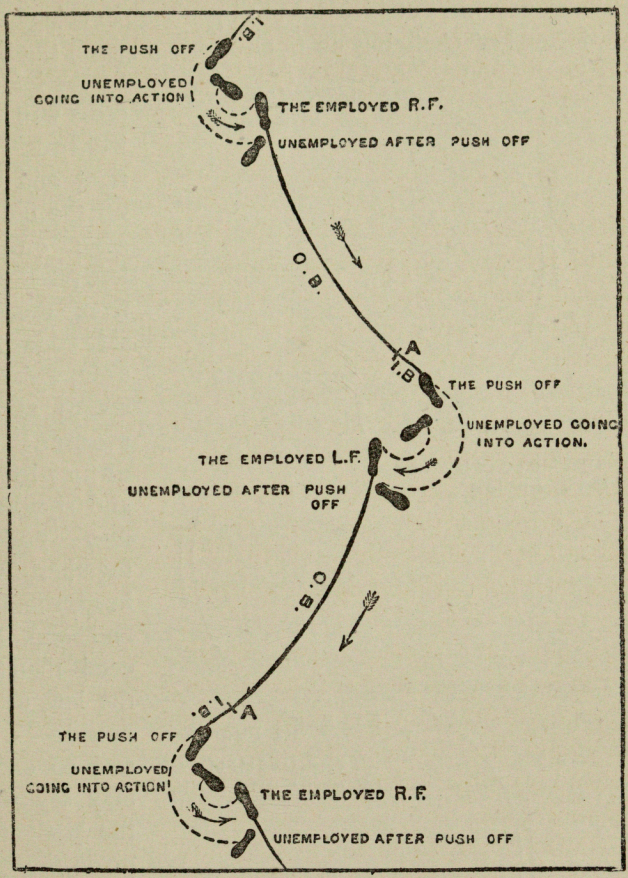



Fig. 10.—Outside edge backwards, or edge D. (From Vandervell and Witham's "System of Figure Skating.")

## CROSS-ROLL BACKWARDS.

Another method of skating the outside edge backwards is upon the cross-roll (Fig. 11). Commence, say, on the right

and continue on an outside edge until you wish to change feet; then, instead of changing on to an inside edge on the right, let the left foot cross well over behind the right and take up the outside edge on the left, pushing off from the outside edge of the right, which becomes at that moment the unemployed, and should go into position together with head, shoulder, and hand. Proceed then on the left, on an outside edge, and so on. I may say when the push-off is given, the other foot, instead of being placed on the ice, is dropped on to an outside edge backwards.

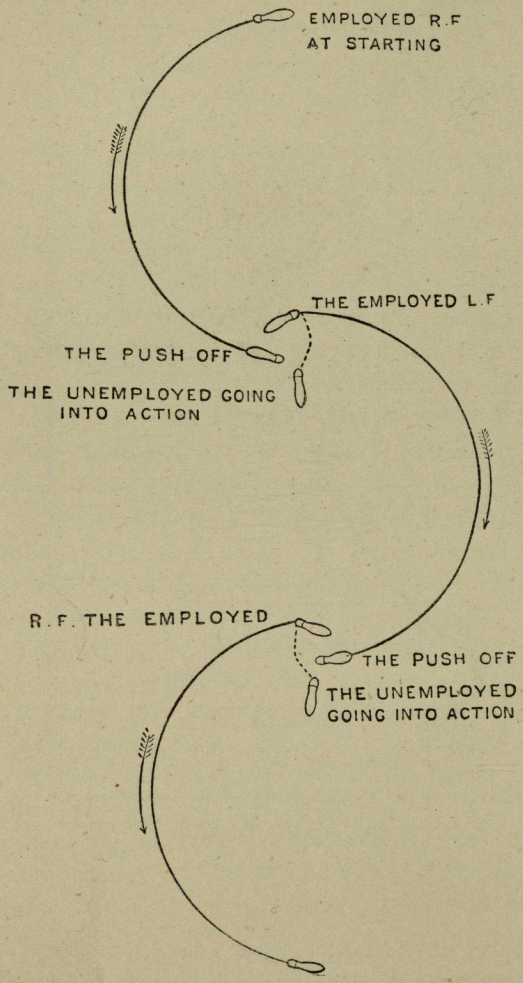



Fig. 11.—Cross-roll backwards.

It is very useful in learning this figure to try to raise the toes, and skate upon the heel or back portion of the blade.

A great advantage is gained by turning the unemployed toe well out just before taking the stroke. When he has mastered this with grace, and in good form, the skater will have learnt a most delightful movement.

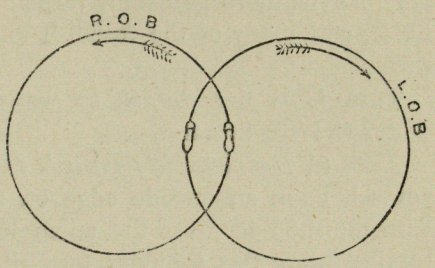


Fig. 12.—Figure 8 on cross-roll backwards.

The figure 8 can be skated on this edge by completing a whole circle on alternate feet (Fig. 12).

## CHAPTER IV.

### THE SIMPLE TURNS.

THE next step for the skater is to learn the figure 3 in its various forms. These 3's skaters now simply call turns, as they involve an alteration in the direction of going, viz. from forwards to backwards, or from backwards to forwards, and also an alteration of edges. Messrs. Vandervell and Witham call these turns A, B, C, and D, being four in number, and being taken respectively from the edges A, B, C, D.

Turn A is from the inside forwards.
Turn B is from the inside backwards.
Turn C is from the outside forwards.
Turn D is from the outside backwards.

The English figure-skater, who, as a rule, uses a blade of

seven-foot radius, makes these turns upon the toe or heel of the skate; but upon blades of five-foot radius or less they can be more gracefully turned upon the centre of the blade, and many of the Swedish and American skaters do this.

Turn C is the easiest, so we would recommend the skater to learn this first.

*Turn C, from outside forwards to inside backwards.* Put yourself upon an outside edge on the right in good form with the shoulder over the unemployed well back; before turning, bring this shoulder forward, raise yourself slightly upon the toe, and turn the body to the right; then immediately bring the left shoulder back into the position of inside back. The unemployed foot always remains behind, but you will find it is most difficult to retain this edge after the turn, the tendency being to come round in small circles. If you have not conquered the position of the body for the inside edge backwards, it is impossible to hold it. The unemployed leg is never allowed to come in front of the employed; and at the moment of turning, the shoulder over the unemployed should be brought forward, but the unemployed never. In fact, the movement is entirely done by the swing of the shoulder. Turning the palm of the hand out is a great assistance in keeping the shoulder back in its proper position; also you should keep the toe of the unemployed well turned out, as you will thus be able to take the next stroke on the other foot with greater ease. The head should also be thrown well back over the unemployed at the moment

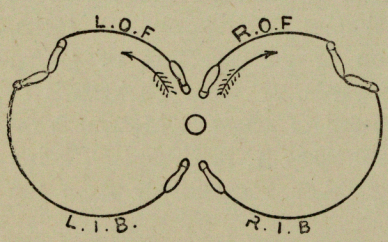


Fig. 13.—Turn C, on right and left foot, to a centre.

of turning. Practise these until you can skate them alternately on each foot to a point or centre (Fig. 13).

*Turn A, from inside forwards to outside backwards.* This turn, being the next in difficulty, should follow turn C. To execute it, put yourself upon an inside edge forward on the right foot, with the unemployed foot well thrown back. Rise slightly on the toe, and turn the body to the left, taking up an outside backwards. In this turn the difficulty will be in holding the edge after turning, and the only way to do this is to pay strict attention to form; while you are upon the edge, immediately the turn is taken, the position should be that of outside back, with the unemployed kept back and never brought forward. The shoulder over the unemployed leg is the main point in all these turns: it should come forward slightly at turning, but be brought back as soon as the turn is made. Practise this until you can skate the turns to a centre with ease on alternate feet (Fig. 14).

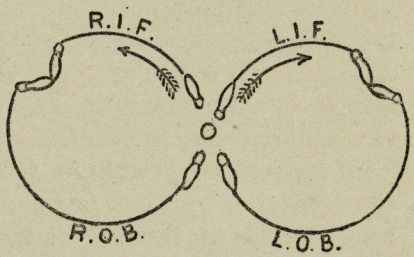


Fig. 14.—Turn A, on right and left foot, to a centre.

*Turn B, from inside backwards to outside forwards.* This turn is upon the heel, and the beginner will require a little pluck, and must not be afraid of getting well upon the heel. It is one of the most difficult turns, and occasioned me many a fall while learning it. The fall is occasioned by not trusting yourself well upon the heel; if the toe is not raised when turning, it will scrape the ice, and a fall is certain. Place yourself on an inside edge backwards upon the right foot, with shoulders, head, and leg well back over the unemployed. At the point of turning allow the left shoulder

to come forward, raise the toe and turn on the heel to the right, and then bring back the left shoulder into the position of outside forwards. When the skater has mastered this turn with ease and in good form, he will have mastered one of the most difficult movements in the art. It can be done to a centre, but is very difficult (Fig. 15).

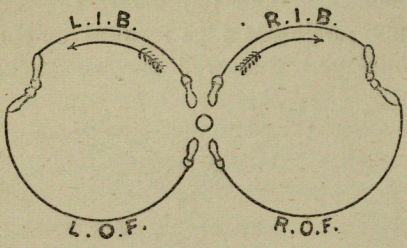


Fig. 15.—Turn B, on right and left foot, to a centre.

*Turn D, from outside backwards to inside forwards.* This is also a heel turn, but is not so difficult as turn B; a considerable amount of practice, however, will be required before the skater will be able to do it with ease.

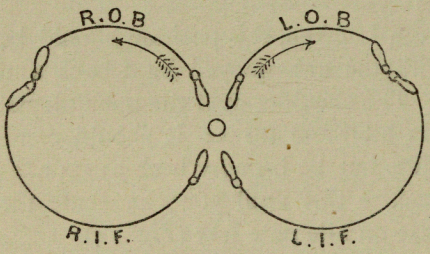


Fig. 16.—Turn D, on right and left foot, to a centre.

The difficulty in this turn is to keep the unemployed back in position, so as to retain the inside edge forward; the unemployed will swing forward, but it should not be allowed to do so. The only part of the body that is allowed to come forward is the head, which is swung forward at the moment of turning, as soon as you have raised the toe. This can also be done to a centre, but is very difficult (Fig. 16).

I may state that the head in all these turns swings over at the moment of turning, so as to be looking in the direction in which you are going; the unemployed should

not be allowed ever to swing, but must be kept always in its proper position, according to the edge the skater is upon.

The principal thing is the position of the shoulder over the unemployed leg, as the turn is made by bringing this forward and backward. Turning the palm of the hand out over the unemployed is always an assistance to keep the shoulder back in position. The body should always be half front when upon the edges.

These four simple turns, A, B, C, and D, can be connected one with the other, viz., C with B, and D with A; and these combinations bring us to another series of figures, and are called half-doubles, or two turns, A, B, C, and D.

*Two turns A.* Start upon the inside edge forwards, and make turn A, which brings you on to an outside edge backwards; then make turn D, which brings you back upon the inside forwards.

*Two turns B* is from the inside edge backwards to the outside forwards, then back to the inside backwards (turns B and C).

*Two turns C* is from the outside edge forwards to the inside backwards, then back to the outside forwards (turns C and B).

*Two turns D* is from the outside edge backwards to the inside forwards, and then back to the outside backwards (turns D and A).

Practise them to a centre on alternate feet.

Two turns C, and two turns D, can be skated nicely on the cross-roll. Be careful in both of these rolls to dwell upon each edge, for a considerable distance, with the unemployed brought into position after each turn. Do not do them with a spin, as is often done, and also mind that the turns are made clean without any scraping.

Two turns A and B can be skated on the inside roll, but this is not often done.

We now come to three turns A, B, C, and D, a series of figures sometimes called double threes. In these you make three turns; for instance, three turns A consists of inside forward to outside back, outside back to inside forward, and inside forward to outside back.

Four turns can be skated on the cross-roll from C and D, as they bring you on to the same edge you started upon.

I have seen a good skater make as many as twenty-four turns or more on one foot; but the beginner should become more generally proficient before he attempts anything of this sort.

## CHAPTER V.

### SERPENTINE LINE, Q'S, AND MOHAWKS.

*The serpentine line* is a change of edge without a turn. It is a most useful movement, and opens out much for the skater to attempt as soon as he has mastered it. It is the motive power for all continuous figures, and is an essential part of the figure Q's. I recommend the beginner to practise this until he has mastered it with grace and ease.

These serpentine lines can be classed as before under the headings A, B, C, and D.

Serpentine line A is a change from the inside edge forwards to the outside forwards.

Serpentine B, from the inside back to the outside back.

Serpentine C, from the outside forwards to the inside forwards.

Serpentine D, from the outside back to the inside back.

*Serpentine line A* (Fig. 17). Let the skater make a sharp run forward, take up edge A (inside forwards) at a good speed, and travel upon it for some distance. To change to an outside forwards, the unemployed leg must then be allowed to swing gently forward, and the shoulder over the unemployed to come forward; at the same time, the balance of the body must swing over until the skater is upon an outside edge; the shoulder over the unemployed together with the unemployed must then be brought back into the position for the outside forwards. The bringing of the shoulder and unemployed leg forward and backwards with a gentle swing gives motive power. Do this on each foot alternately.

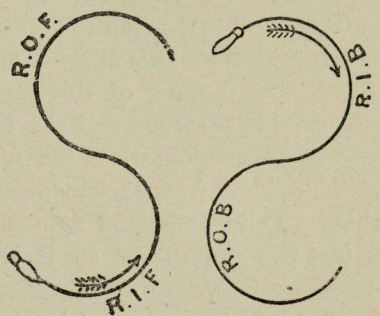


Fig. 17.—Serpentine lines A and B.

Serpentines B, C, and D, are done in the same way, commencing from edges B, C, and D.

Serpentines A and C can be united, for when you are skating A the change brings you upon an outside forwards, *i.e.* C, when you can change back to A. Serpentine B and D also interchange.

## The Figure Q's.

This is a very interesting series of figures, which are a combination of the serpentine line and the turns. The name Q derives its origin from the fact that the combination of a serpentine line and a turn can be skated so as to make a figure somewhat similar to the letter Q

(Fig. 18). In practice, however, they are seldom skated in this form, the curves on the edge being made of equal length or nearly so, just as the skater thinks fit to do them.

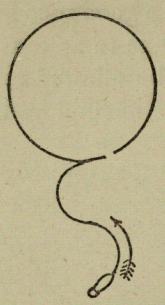


Fig. 18.—The Q.

The Q figure has eight variations, which we call—Q A, Q B, Q C, Q D; reverse Q A, reverse Q B, reverse Q C, reverse Q D.

It is of great importance to understand the force of this term "reverse," which always means that the turn precedes the serpentine line, while the figure Q means that the serpentine line precedes the turn. Should you skate a Q in combined figures when a reverse Q is called, it will put you wrong, so it is well to bear in mind the difference between them (Figs. 19 and 20).

*Q A.* Take a curve of inside forwards, then change over to outside forwards by means of a serpentine line, and, when you have continued this outside edge for some distance, turn to inside back (by turn C).

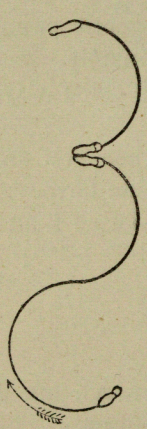


Fig. 19.—The Q as generally skated.

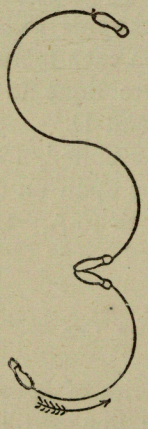


Fig. 20.—The reverse Q.

*Q B.* Commence with a curve of inside back, change to outside back, and then turn to inside forwards (by turn D).

*Q C.* Commence on an outside forwards, change to inside forwards, and then turn to outside back (by turn A).

*Q D.* Commence on outside back, change to inside back, and then turn to outside forwards (by turn B).

*Reverse Q A.* Commence with an inside forwards, turn (by turn A) to outside back, and then change with a serpentine line to inside back.

*Reverse Q B.* Commence with inside back, turn (by turn B) to outside forwards, and then change to inside forwards.

*Reverse Q C.* Commence with outside forwards, turn (by turn C) to inside back, and then change over to outside back.

*Reverse Q D.* Commence with outside back, turn (by turn D) to inside forwards, and then change over to outside forwards.

There are endless ways of combining these various Q's and reverse Q's; for instance, Q A and Q B can be combined into what is called double Q A (Fig. 21); and thus

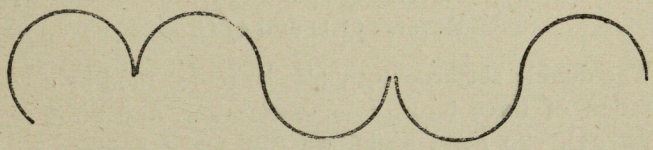


Fig. 21.—Double Q.

we have another set of eight Q figures, called the double Q's.

Double Q A, formed by uniting Q A and Q B.
Double Q B, formed by uniting Q B and Q A.
Double Q C, formed by uniting Q C and Q D.
Double Q D, formed by uniting Q D and Q C.
Double reverse Q A, formed by uniting reverse Q A and reverse Q B.
Double reverse Q B, formed by uniting reverse Q B and reverse Q A.
Double reverse Q C, formed by uniting reverse Q C and reverse Q D.

Double reverse Q D, formed by uniting reverse Q D and reverse Q C.

We can also combine the reverse Q's with the Q's, and in this way form the figure called the spectacles (Fig. 22);

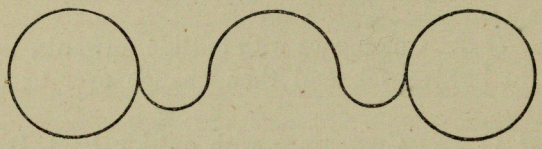


Fig. 22.—The spectacles.

and thus we have another set of four figures, called the spectacles—

Reverse Q A and Q B.
Reverse Q B and Q A.
Reverse Q C and Q D.
Reverse Q D and Q C.

The double shamrock can also be represented by a combination of three turns, a serpentine line, and three turns (Fig. 23). So here, again, we can make another set of figures, four in number.

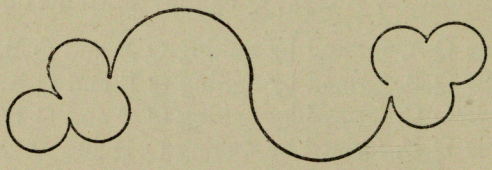


Fig. 23.—Double shamrock.

Double shamrock A, uniting three turns A, serpentine, and three turns Q B.

Double shamrock B, uniting three turns B, serpentine, and three turns Q A.

Double shamrock C, uniting three turns C, serpentine, and three turns Q D.

Double shamrock D, uniting three turns D, serpentine, and three turns Q C.

It is unnecessary to give any more examples of these series of figures, but the skater will see that as soon as he has mastered all the turns and serpentine lines he will have countless interesting figures to work out, and it will give him endless delight to find out the different combinations which the skating world classes under the name of Q.

## MOHAWKS.

The figures which are called the Mohawks contain a change of feet, and also a change of direction, from forwards to backwards, or backwards to forwards, the change of feet being made in an unusual manner.

*Forward Outside Mohawk* from the outside edge forwards to the outside edge backwards. Start on an outside edge forwards upon the right foot, and just before the change is made bring the unemployed knee forward together with the left shoulder; as soon as they are forward, they must be swung back, and the left foot is dropped upon the ice behind the right, upon the outside edge backwards (Fig. 24).

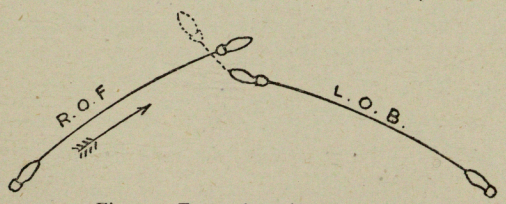



Fig. 24.—Forward outside Mohawk.

*Forward Inside Mohawk* from the inside edge forwards to the inside backwards. Start on the right inside edge forwards; bring the left shoulder and knee slightly for-

ward, and then back; with a swing drop the left behind the right upon an inside edge backwards, and at the same moment lift the right foot and travel upon the left. The marks made upon the ice are the same as in Fig. 24, but they are done on the inside edges.

This Mohawk is generally skated by commencing on the outside forwards on the right, crossing the left behind, and taking up an inside edge forwards upon the left, then immediately making the Mohawk change, which brings you on to an inside edge back on the right (Fig. 25).

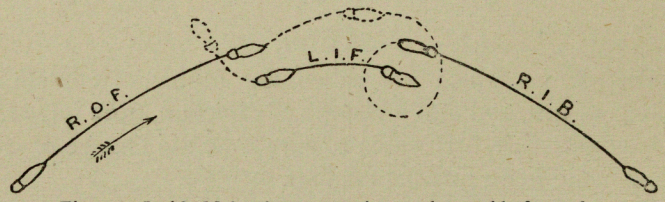



Fig. 25.—Inside Mohawk, commencing on the outside forwards.

*Back Outside Mohawk.* The back Mohawks are clumsy figures, and are seldom skated. For this one start upon an outside back on the right. The left, or unemployed, must swing round with the toe turned in, so as to take up an outside forwards in front of the right, as shown by the dotted line, Fig. 26.

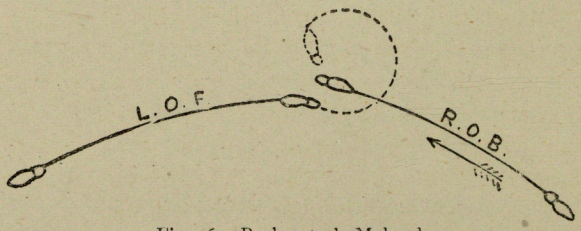



Fig. 26.—Back outside Mohawk.

*Back Inside Mohawk* is the same movement, but on the inside edges, and is just as awkward.

## CHAPTER VI.

### LOOPS, CROSS-CUTS, ROCKING TURNS, COUNTER ROCKING TURNS, AND BRACKET TURNS.

### The Loops.

The loops, if done neatly and large, are very effective figures; but I do not care much for them, as they require too much swing of the unemployed leg.

There are four ways of cutting these figure-loops, one from each edge, both forwards and backwards.

Loop A, on inside forwards.
Loop B, on inside backwards.
Loop C, on outside forwards.
Loop D, on outside backwards.

The most difficult are loops A and B from the inside edge, the other two being fairly easy for a skater who can do about half of that which has already been described. It is simply a matter of balance and swing of the unemployed leg at the right moment.

*Loop C*, which I will describe first, is made thus: The skater places himself upon a curve on the outside forwards, the balance being upon the forward portion of the blade; then with a swing forward of the unemployed leg, together with the shoulder over it, he turns round and makes a loop. The edge is not changed, nor is the direction, and at the finish he is upon an outside edge forward, as at the commencement (Fig. 27).

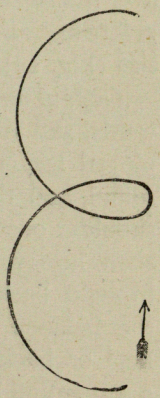


Fig. 27.—The loop.

In these loops there is more knack in swinging the leg at

the right moment than anything else, and the beginner will soon acquire it by practice.

This loop can be skated with great effect alternately on the cross-roll (Fig. 28).

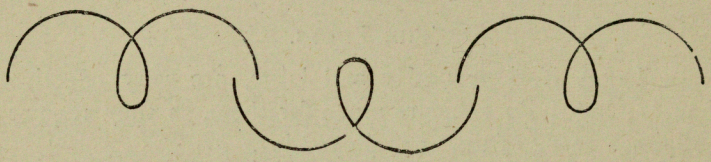


Fig. 28.—Loops on the cross-roll.

*Loop D* is the same figure, but on an outside edge backwards, the unemployed leg being slightly brought forward and then swung back when the skater wishes to turn the loop. This can also be skated on the cross-roll backwards, and if done neatly and large is very effective.

Double loops can also be easily made; also three, four, or five, if the skater wishes; but he should be careful when practising always to make them large, and of the same size (Fig. 29).

*Loops A and B* are on the inside edge forwards and backwards, and are very difficult for the reason that the unemployed leg is in such a position that it cannot be swung round, and the whole impetus must be obtained from the shoulder over the unemployed being brought forward. As soon, however, as the loop is cut the shoulder should be brought back into position. It is also necessary to keep the balance of the body as much as possible upon the heel or back portion of the blade. Loops combined with a serpentine line are effective figures on the cross-roll.

Cut loop C, serpentine over, and cut loop A and serpentine over again, and cut loop C (Fig. 30).

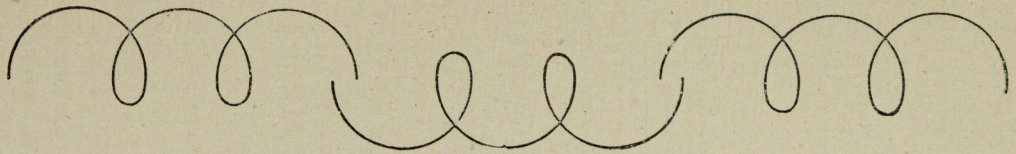


Fig. 29.—Double loops on the cross-roll.

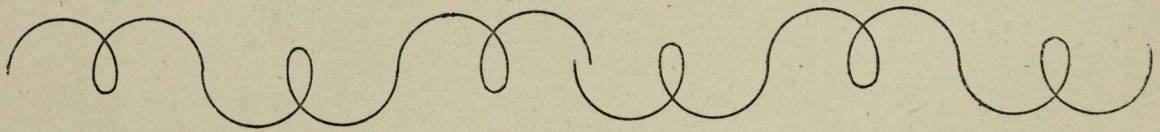


Fig. 30.—Loop C, A, and C, on the cross-roll.

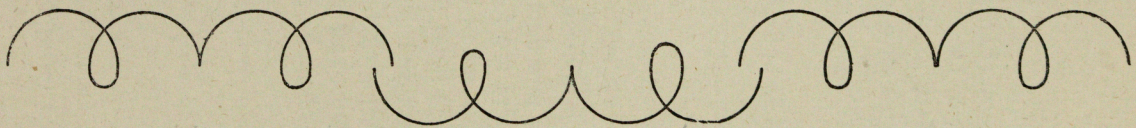


Fig. 31.—Loop, turn, and loop, on the cross-roll.

*Loop, Turn, and Loop* gives an interesting combination on a roll, for it alternates on the outside forward and inside back-roll (Fig. 31). This can be commenced on edges, A, B, C, or D.

*Turn, Loop, and Turn* is another combination that is effective on a cross-roll, which can be skated commencing on edges A, B, C, or D.

## Cross-cuts.

While the skater has been learning loops he will have found that just when he is about to turn the skate slips back, and, on examining the figure made upon the ice, he will find that he has not cut a true loop, but something like Fig. 32.

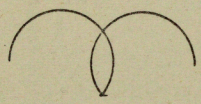


Fig. 32.

This movement has only to be encouraged and he will find a new figure which is called the cross-cut.

There are four cross-cuts, called A, B, C, and D.

*Cross-cut C*, being the easiest, will first be described. It is made thus: Start as if about to cut the loop C; when the unemployed leg is brought forward rise slightly on the toe, bringing the unemployed with a swift swing back and forwards, and you will find, after some little practice, that you will make this figure (Fig. 33) upon the ice—

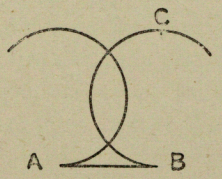



Fig. 33.—The cross-cut.

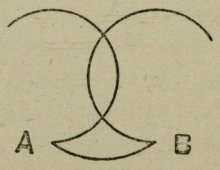



Fig. 34.—Cross-cut (another method).

The unemployed leg is brought back when the skater

gets to A in Fig. 33, and forward when he gets to B. When he arrives at C, it must come into position of outside edge forwards, which edge he will find difficult to hold. It must, however, be held for a considerable distance before he can say that he can cut cross-cut C.

Some skaters say a cross-cut must be done as in Fig. 34, but in either way the movement is the same. In Sweden I noticed it was always cut as Fig. 34, but here I have generally noticed that it is skated as Fig. 33.

*Cross-cut D* is from the outside back. In this the skater rises slightly upon the heel, and as he is on a backward movement the swift swing of the unemployed leg is forward and back, instead of back and forward.

Inside cross-cuts are by no means easy, and it is very difficult to hold the edge after making them. I find they are more easily made as shown in Fig. 34 than as in Fig. 33; the movement of the unemployed leg is much the same.

*Cross-cut A.* In this the unemployed leg moves swiftly back and forward, while in

*Cross-cut B* it moves swiftly forward and back. These figures can be done in several ways, combined with loops or turns.

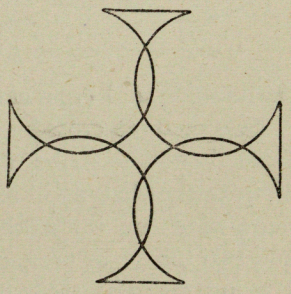


Fig. 35.—Maltese cross.

Four of these cross-cuts can be made to represent a Maltese cross (Fig. 35), but the skater will have to be very sure of them before he will be able to skate this neatly.

Another way of skating four cross-cuts is as in Fig. 36, where you make the cross-cuts at the centre.

Cross-cut, loop, and cross-cut combined make an effective

figure upon the cross-roll, either forwards or backwards (Fig. 37).

Loop, cross-cut, and loop is another interesting combination (Fig. 38).

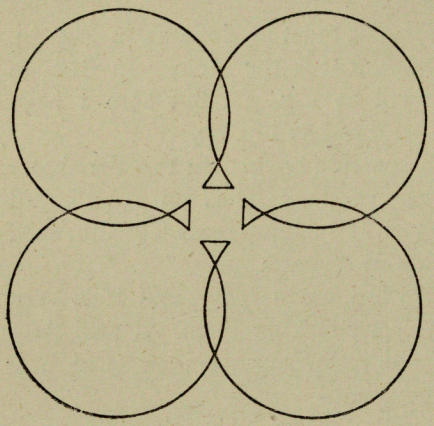


Fig. 36.—Four cross-cuts at a centre.

Cross-cut, turn, and cross-cut is a nice figure on alternate feet, as it brings in an inside cross-cut, and an outside cross-cut; it also combines the outside and inside roll (Fig. 39).

Turn, cross-cut, and turn is another combination of cross-cut and turns which is very effective.

We now come to a combination of the serpentine line and cross-cuts on the cross-roll (Fig. 40).

Two or three cross-cuts can also be skated on a cross-roll. I need not describe any further combinations of these figures; the skater will find for himself that there are many more which he can work out, such as two turns, cross-cut, and two turns; or cross-cut, two turns, and cross-cut. Also Q's, together with the cross-cuts, can be made very effective.

Some of these combinations are very difficult, but let me impress upon the skater that these cross-cuts should always be skated large; they are fine figures when skated large but nothing when skated small.

There is no reason why these should not be brought into combined figures, but as yet I have never seen them skated. The objection is the swing of the unemployed leg backwards

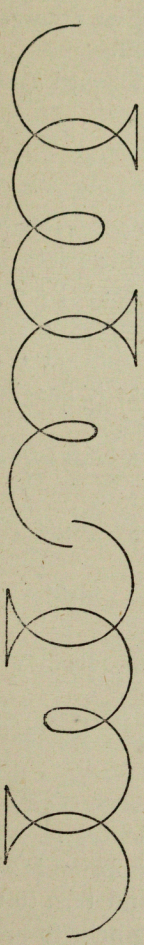


Fig. 37.—Cross-cut, loop, and cross-cut.

Fig. 38.—Loop, cross-cut, and loop.

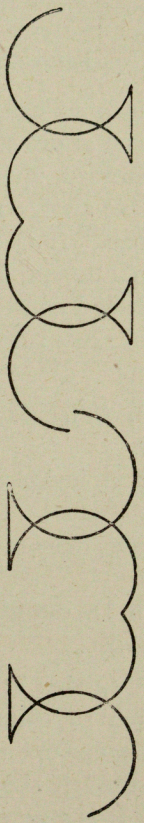


Fig. 39.—Cross-cut, turn, and cross-cut, on alternate feet.

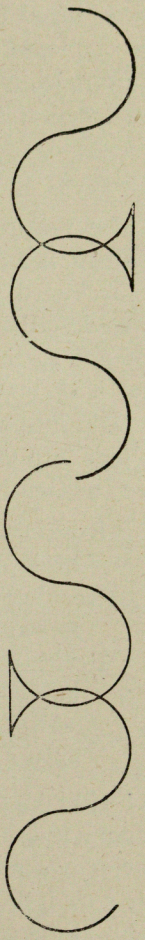


Fig. 40.—Serpentine line, cross-cut, and serpentine line, on the cross-roll.

and forwards, which some people say is not pretty; but if the unemployed leg in doing them is not swung far away from the employed it is not an ungraceful movement.

Forward, and forward cross-cut out, and forward should work well.

## Rocking Turns.

The rocking turn, so called by Messrs. Vandervell and Witham, is a change of direction from forward to backward, or backward to forward, upon one cutting edge. Previous turns described have always necessitated a change of edge, but not so this one. It is one of the most difficult turns that a skater can attempt, but of late years it has been brought into combined figures with great effect.

This turn can be skated from the two edges, both forward and backward.

Rocking turn A, inside edge forwards, to inside edge backwards.

Rocking turn B, inside edge backwards, to inside edge forwards.

Rocking turn C, outside edge forwards, to outside edge backwards.

Rocking turn D, outside edge backwards, to outside edge forwards.

I will take C first, edge C being the favourite edge with skaters upon which to commence new difficulties. After travelling some distance upon the right outside forwards with fair speed, bring the left shoulder forward, and turn to the right on the toe. It is a great help to the beginner to bring forward the left leg slightly; the foot should not be brought forward but only the knee, just in front of the right at the moment of the turn. Immediately after the turn it must be

brought back again with the shoulder. The great difficulty is in holding the edge after the turn, and I have found it a help to turn the head and look over the left shoulder just before making the turn, instead of just after, as you would suppose. When upon the outside back you will find there is a great tendency for the unemployed to come forward, but you must not let it do so, it must be kept back in its proper place.

An upright position with stiff knee is essential in doing this figure, and it is easier to do at a fair pace.

The skater may often pride himself, and think he has made a splendid rocking turn, but let him examine the marks cut upon the ice, and in nine cases out of ten he will find that he has allowed a small portion of an inside forwards to come in just before the turn, and so has not made a true turn upon the edge, but a kind of distorted Q (Fig. 42), instead of a correct rocking turn (Fig. 41).

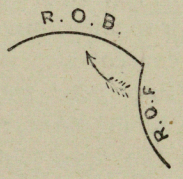



Fig. 41.—Rocking turn C.

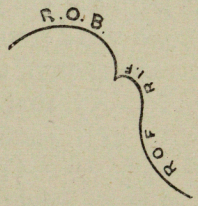



Fig. 42.—Incorrect rocking turn, or distorted Q C.

*Rocking turn D* is from outside back to outside forwards. This is much easier, but why I cannot tell, than turn C, just described; the skater can hold the edge, after turning, with greater ease. Start, say, on the right outside back, right shoulder forward, and turn on the heel to the left; the unemployed knee may come forward, as in turn C, but must be brought back as soon as you are upon the forward edge. Be careful to examine the marks upon the ice, so that you may be sure that you have made the turn correctly, without the small portion of inside edge.

*Rocking turn A* is from the inside forwards to inside back. This turn on the right is done by bringing the right shoulder forward, and turning on the toe to the left; the bringing the knee forward can be of use here.

*Rocking turn B* is from the inside back to inside forwards. Starting on the right, you bring the left shoulder forward, and turn on the heel to the left. The knee in this can also be brought forward to advantage.

## Counter Rocking Turns.

Counter rocking turns are the same as the rocking turns, but the turn is made in the opposite direction; and it is well to learn the difference, for, when skating combined figures, if you skate a counter rocking turn at the centre, instead of a rocking turn, the consequence is disastrous, as you run straight into your partner. There are four counter rocking turns, A, B, C, and D.

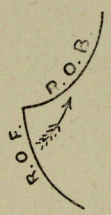


Fig. 43.—Counter rocking turn C.

*C*, on the right foot, (Fig. 43), brings the right shoulder forward (instead of the left), and turn on the toe to the left (instead of to the right); the knee can be brought forward and back, as in the rocking turns.

*D*, the most difficult of all, is from the outside backwards to the outside forwards, on the right foot. The turn is made to the right on the heel (instead of to the left), and the left shoulder is brought forward (instead of the right). The unemployed knee may be brought forward and back.

*A*, the easiest of all, is done on the right foot, by bringing the left shoulder forward (instead of the right), and turning to the right (instead of the left).

*B* is done by bringing the right shoulder forward (instead of the left), and turning to the left (instead of the right).

The reader is recommended to learn the following table of reference of the Rocking and Counter Rocking Turns—

ROCKING TURNS.

Outside forwards to outside backwards : R. foot, turn to R., L. shoulder forward ; L. foot, turn to L., R. shoulder forward.

Outside backwards to outside forwards : R. foot, turn to L., R. shoulder forward ; L. foot, turn to R., L. shoulder forward.

Inside forwards to inside backwards : R. foot, turn to L., R. shoulder forward ; L. foot, turn to R., L. shoulder forward.

Inside backwards to inside forwards : R. foot, turn to R., L. shoulder forward ; L. foot, turn to L., R. shoulder forward.

COUNTER ROCKING TURNS.

Outside forwards to outside backwards : R. foot, turn to L., R. shoulder forward ; L. foot, turn to R., L. shoulder forward.

Outside backwards to outside forwards : R. foot, turn to R., L. shoulder forward ; L. foot, turn to L., R. shoulder forward.

Inside forwards to inside backwards : R. foot, turn to R., L. shoulder forward ; L. foot, turn to L., R. shoulder forward.

Inside backwards to inside forwards : R. foot, turn to L., R. shoulder forward ; L. foot, turn to R., L. shoulder forward.

Now these rocking turns can be combined one with the other, and with turns, Q's, loops, and cross-cuts. Some of these combinations I will describe later on, in my chapter on continuous figures.

## Bracket Turns.

We now arrive at some more very interesting figures, termed the bracket turns. They are so called in consequence of the marks cut upon the ice, which resemble brackets as used in printing.

These turns contain a change of direction from forward to backward, or backward to forward, and also a change of edge from inside to outside, or outside to inside, therefore these are four in number, termed A, B, C, and D.

The turn is made in the contrary direction to the ordinary simple three-turn. For instance, in turn A on the right foot you turn to the left, while in bracket turn A you turn to the right.

*A.* Start on an inside edge, on the right foot, and when you wish to turn bring the left shoulder forward together with the unemployed knee, throw the head over the left shoulder, and turn to the right on the toe; bring back the left shoulder and knee directly after the turn, when the skater will be upon an outside back (Fig. 44).

*B.* Start on an inside edge backwards, on the right foot, bring the left shoulder forward, and the knee of the unemployed, and turn to the left upon the heel, when you will be upon an outside forwards (Fig. 45).

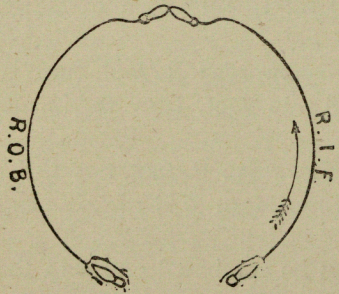



Fig. 44.—Bracket turn A.

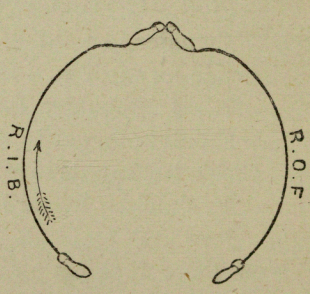



Fig. 45.—Bracket turn B.

*C.* Start on an outside edge forwards, on the right foot, bring the left shoulder forward, and the knee of the unemployed, and turn upon the toe to the left, when you will be upon an inside backwards.

*D.* Start upon an outside edge backwards on the right, bring the left shoulder forward, and the knee of the unemployed, and turn to the right, when you will be upon an inside forwards.

On the left foot the turn is made in the opposite direction in all four turns.

Practise all these turns to a centre with alternate feet, and when you have mastered them you will find they are very effective, and will give you much pleasure in skating them. They have of late years been brought into combined figures with success.

## CHAPTER VII.

### COMBINED FIGURES.

COMBINED figure-skating was introduced many years back by the London Skating Club; at first only the simple movements were attempted, but now most of the difficult figures are introduced by the best skaters with great success. I know nothing more delightful than skating in combination with other good skaters; the interest never flags, and you can continue figure after figure with the greatest pleasure for half an hour or more without stopping. The skater who has once joined in these combined figures will feel that a new world is open to him in skating.

Combined figures, as performed at the Skating Club, can be skated by two, four, six, or eight skaters. Each figure is commenced and finished at a centre. Usually an orange

marks this centre as it can be seen easily, and moves without tripping up the skater should he foul it. Suppose two persons are commencing to skate a set of combined figures, they stand a few yards from the orange, or centre, facing one another; they pass each other close to the centre, to the left if on the right foot, and to the right if on the left foot, and the figure always commences as they pass the centre. They then circle round this centre in opposite directions, skating the figure called. The centre should always be between them the whole time; that is, if an imaginary line be drawn from one to the other at any moment it should cut through the centre, and just before finishing the figure at the centre the caller should call the next (second) figure.

If four persons are skating, the second pair should stand facing the centre at right angles to the first pair, and as soon as the first pair are well past the centre they should start, and return as soon as they are away again for the second figure. If six or eight persons are skating they should stand at equal distances from one another at starting (Fig. 46), each person opposite his partner—one and two, three and four, five and six, and seven and eight, being partners, and following each other in this rotation.

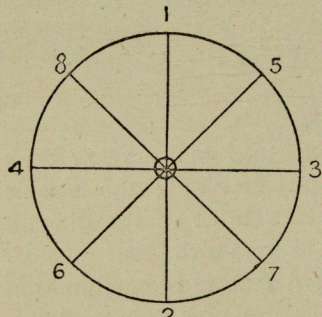


Fig. 46.

I have heard of twelve skating combined figures together, but eight is quite enough if the figure is to go smoothly, and even then they must have practised a great deal together, and be careful to come up to time. It is very necessary that the partners should meet at the same moment at the centre.

Supposing a very powerful skater is skating with one who is not so powerful, it is his duty not to overskate his partner, but to skate well within his power, and always keep opposite his partner. Many a time have I seen a figure broken up because the more powerful skater would not accommodate himself to the weaker.

It is a mistake to think that, because a skater is not good upon all the different movements, he cannot skate some of the combined figures. For instance, most of the first set only necessitate that the skater should have acquired all the edges, the serpentine line, and turn C to a centre. If he can do this let him by all means commence the combined figures, for it will give him interest in the art, and is also first-rate practice.

Messrs. Montague S. F. and Stanley F. Monier-Williams have issued an illustrated work called "Combined Figure Skating" (published by Horace Cox, 346, Strand), containing no less than 130 different movements, all drawn to scale, and arranged most admirably in sets, the figures alternating with one another so that the skater does each movement on each foot. All figure-skaters have to thank these gentlemen for having so ably arranged the movements; and as soon as the skater begins combined figures he should study and learn these sets.

Up to only a few years ago the Skating Club was the only club that skated combined figures, but now, I am glad to say, they are skated by several clubs in London and the provinces. I should like to see in England and Scotland clubs formed in every provincial town, so that wherever a good skater might be he might meet men who know these figures. They must, however, be well known before they can be skated with accuracy. Messrs. Monier-Williams, before writing their book, consulted with the first skaters in

England; and a select committee was called to arrange a systematic mode of calling figures, and certain rules were then drawn up. These rules, which may also be found in "Combined Figure Skating," are as follows

## Rules for calling Figures.

1. Every movement of a "call" shall be commenced on the "outside" edge unless "inside" be specified.
2. Each movement shall be continued on one foot until the call indicates a change of foot.
3. The word "and" in a call shall indicate change of foot.
4. Every figure shall begin and end at the centre.
5. The centre shall not be passed in the figure unless so called, except in the case of the terms "entire," "pass," and "meet."
6. The term "change" indicates a change of edge by means of a serpentine line.
7. The term "reverse" shall be applied only to Q's in which the turn precedes the change.
8. The term "entire" signifies a cross-roll at the centre, either forwards or backwards as indicated by the call.

The term "once back" means outside edge forwards, to inside back (by means of turn C), and a drop on to an outside edge back on the other foot. "Twice back" is the same thing repeated twice. Most figures are commenced on the twice back, so that pace may be gained before the skater attempts the difficult movements; it also takes him well away from the centre, and so the figure runs more smoothly.

Messrs. Monier-Williams have kindly permitted me to

reproduce their first set of calls; but the skater should consult their book for further sets of figures.

## MESSRS. MONIER-WILLIAMS' FIRST SET OF ALTERNATING CALLS.

(*a*) Forward three (No. 1).
Forward three (No. 1).

(*b*) Twice back—and forward (No. 2).
Twice back—and forward (No. 2).

(*c*) Twice back—and forward three (No. 3).
Twice back—and forward three (No. 3).

(*d*) Twice back, meet—and forward three (No. 4).
Twice back—and forward—and forward entire (No. 5).
Twice back, meet—and forward three (No. 4).
Twice back—and forward—and forward entire (No. 5).

(*e*) Twice back—and back entire—and forward three (No. 6).
Forward—and forward three out—and forward (No. 7).
Twice back—and back entire—and forward three (No. 6).
Forward—and forward three out—and forward (No. 7).

(*f*) Twice back—and forward change at centre (No. 8).
Forward inside change out—and forward in (No. 9).
Twice back—and forward change at centre (No. 8).
Turn and inside change out—and forward in (No. 9).

(*g*) Twice back—and forward—and forward inside change at centre (No. 10).

Forward—and forward change out—and forward in (No 11).

Twice back—and forward—and forward inside change at centre (No. 10).

Forward—and forward change out—and forward in (No. 11).

(*h*) Twice back—and forward Q (changing at centre (No. 12).

Twice back—and forward—and forward inside Q (changing at centre), (No. 13).

Twice back—and forward Q (changing at centre), (No. 12).

Twice back—and forward—and forward inside Q (changing at centre), (No. 13).

(*i*) Forward three (No. 1).

Forward three (No. 1).

## Combined Figures.

No. I.—*Forward Three.*

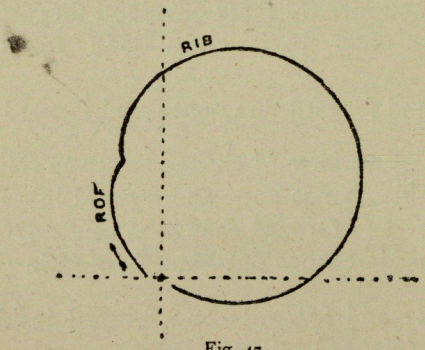
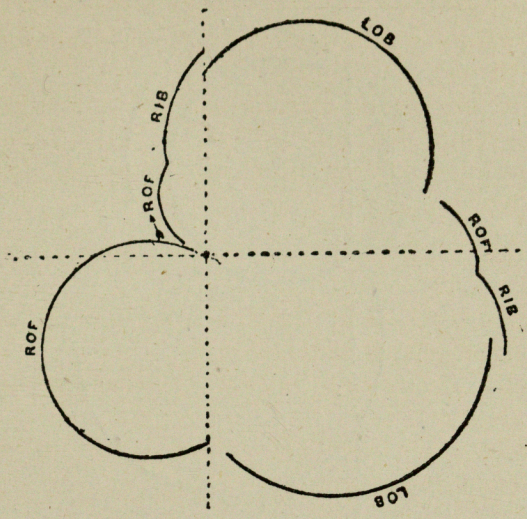
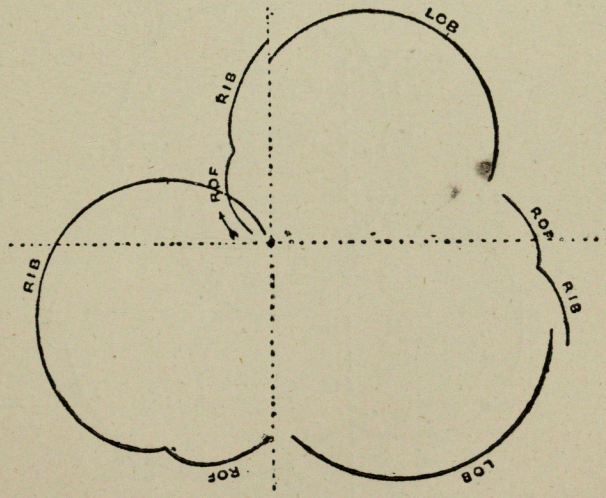



Fig. 47.

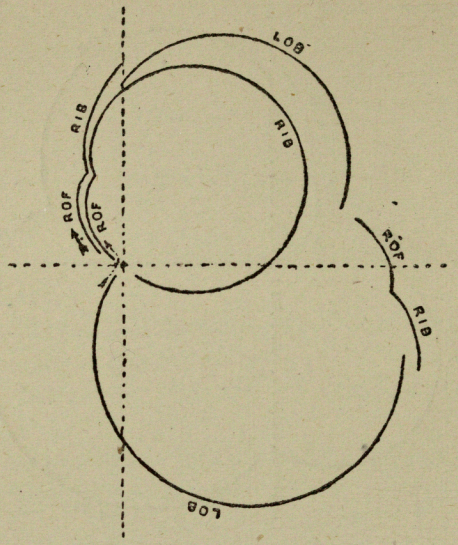
No. II.— *Twice back and forward.* Fig. 48.



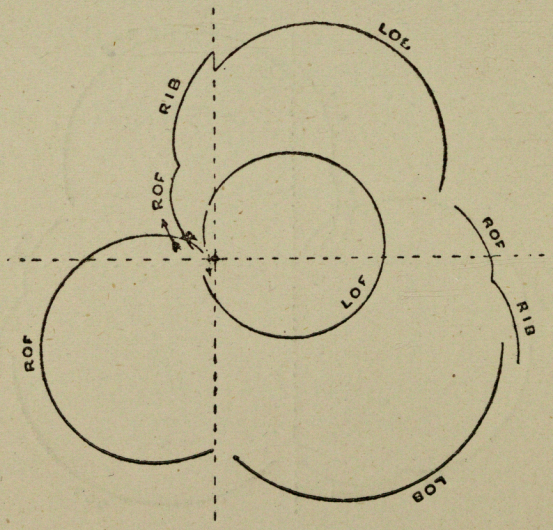

No. III.—*Twice back and forward three.* Fig. 49.



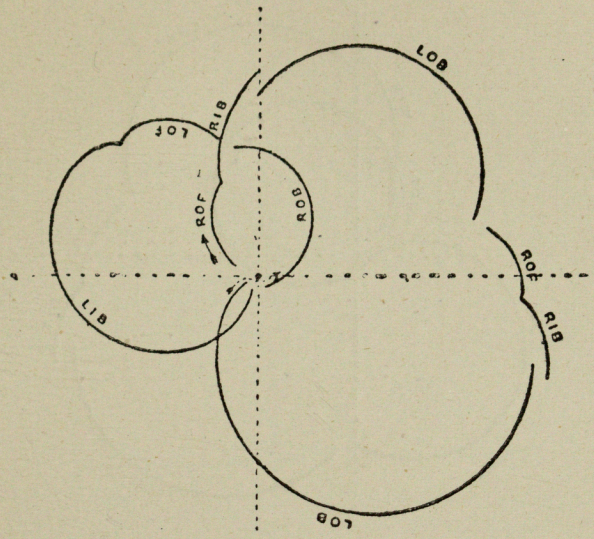
No. IV.—*Twice back, meet and forward three.* Fig. 50.



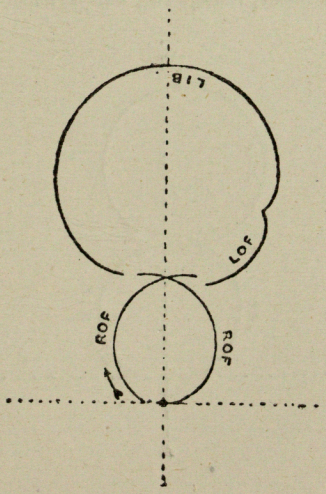

No. V.—*Twice back and forward, and forward entire.* Fig. 51.



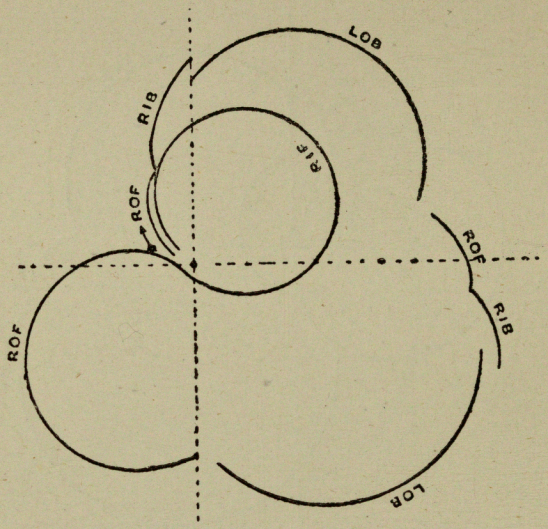
No. VI.—*Twice back and back entire, and forward three.* Fig. 52.



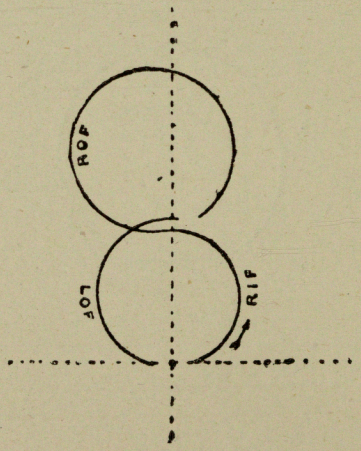

No. VII.—*Forward, and forward three out, and forward in.* Fig. 53.



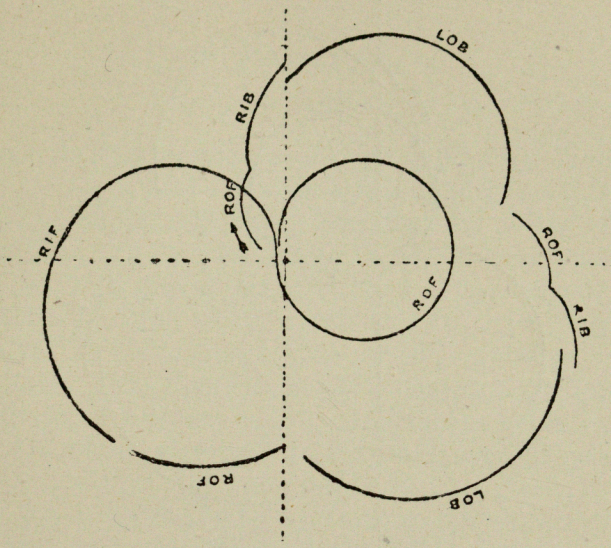
No. VIII.—*Twice back, and forward change at centre.* Fig. 54.



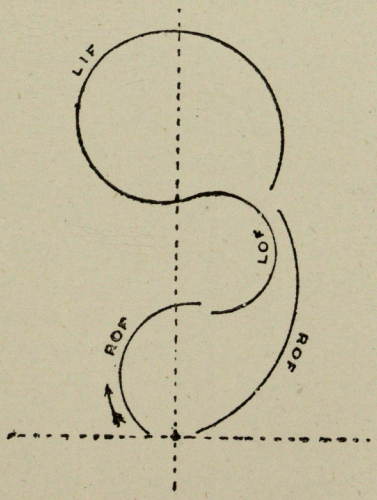

No. IX.—*Forward inside, change out, and forward in.* Fig. 55.



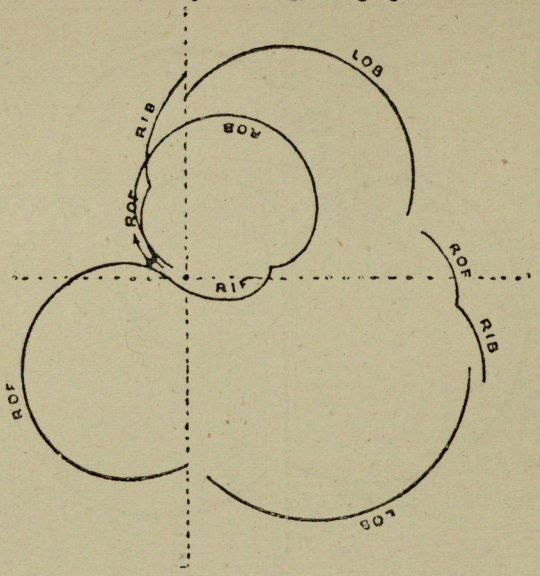
No. X.—*Twice back and forward, and forward inside change at centre.* Fig. 56.



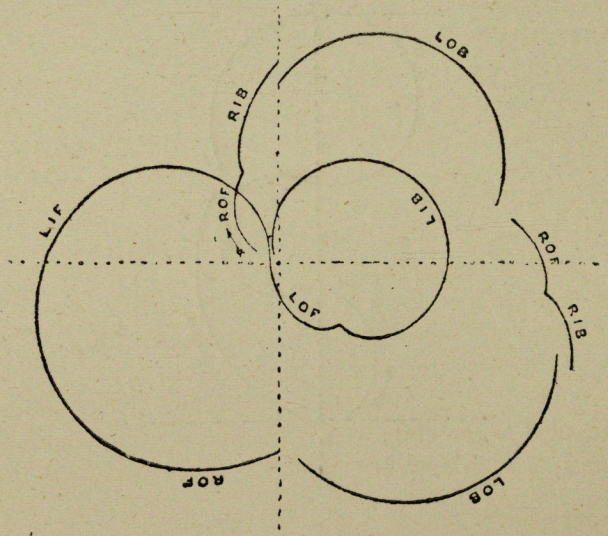

No. XI.—*Forward, and forward change out, and forward in.* Fig. 57.



No. XII.—*Twice back, and forward Q, changing at centre.* Fig. 58.




No. XIII.—*Twice back and forward, and forward inside Q, changing at centre.* Fig. 59.



## CHAPTER VIII.

### CONTINUOUS FIGURES.

CONTINUOUS figures are figures that can be kept up continuously upon one foot, without placing the other upon the ice.

These figures have been very little practised in England, and there are but few who can do them. The impetus is gained by the change of edge employed in the serpentine line, and by the swing of the unemployed leg, but the latter should not be used except when actually necessary. It is needless to say that combined continuous figures are very difficult, and require an immense amount of practice. Nearly every figure already described can be brought in and skated in combination in a continuous motion.

*The Eight* (Fig. 60) is the first to be learnt. It may be skated both forwards and backwards, starting on either edges. It is simply a circle on each edge, which can be kept up as long as the skater wishes, the motive-power being obtained by the change of edge. The difficult change is from the inside to the outside edge, as very little swing of the unemployed leg can be given. At the moment the change of edge is required, swing the shoulder over the unemployed forwards and backwards; keep the legs together, but let the knee of the unemployed be brought forward and back at the same moment as the shoulder; never let the legs stray wide apart; and let the knee of the unemployed, when brought forward and back, almost touch the knee of the employed. In this way motive-power is obtained; and when the skater has once mastered the

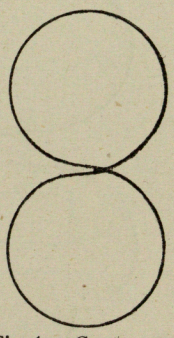


Fig. 60.—Continuous eight.

movement he will find innumerable combinations of figures at his command. I would, however, advise him to perfect himself upon this simple one, before attempting any of the more difficult movements. Some skaters find the back movement easier than the forward—that is, a combination of outside back and inside back; impetus in this is obtained in the same manner as before, by the swing of the shoulder and the unemployed leg.

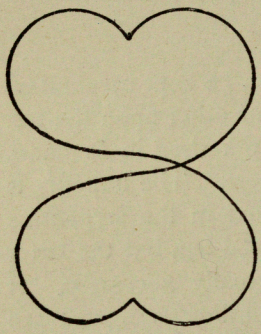


Fig. 61.—Continuous Q.

I give below a series of figures that can be skated continuously.

*Continuous Q's.* In these figures all four edges are used, together with turns (Figs. 61, 62, 63).

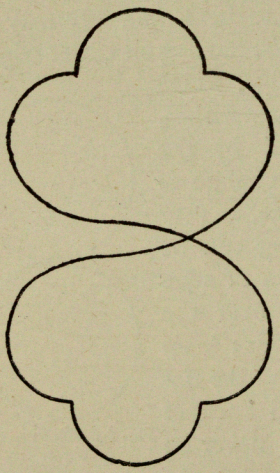


Fig. 62.—Continuous Q, two turns.

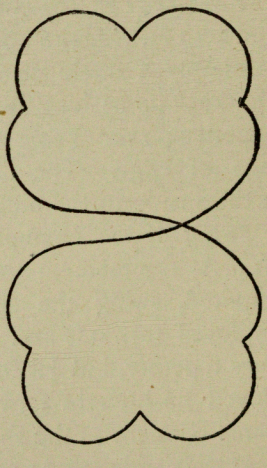


Fig. 63.—Continuous Q, three turns.

These three figures are very effective, and will give the skater much pleasure when mastered.

*Loop Eights* are also good practice, and make effective figures (Figs. 64, 65). These can be skated both forwards and backwards.

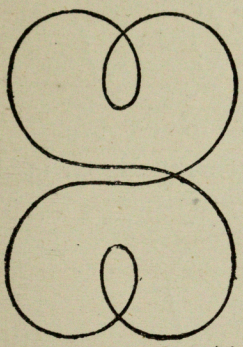


Fig. 64.—Continuous loop eight.

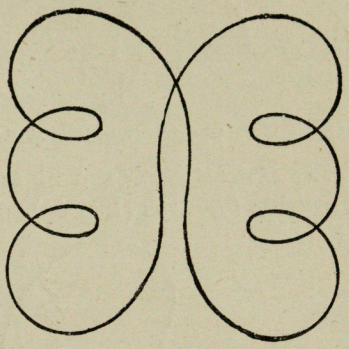


Fig. 65.—Continuous double loop eight.

*Loops* can also be skated both forwards and backwards by means of a serpentine line between the loops.

*The Cross-cut Eight* is another figure that can be skated with great effect (Figs. 66, 67).

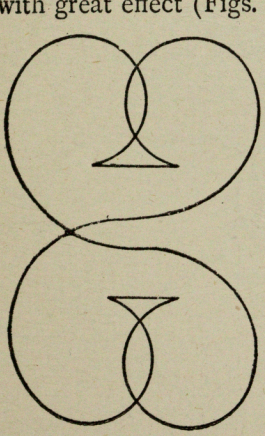


Fig. 66.—Continuous cross-cut eight.

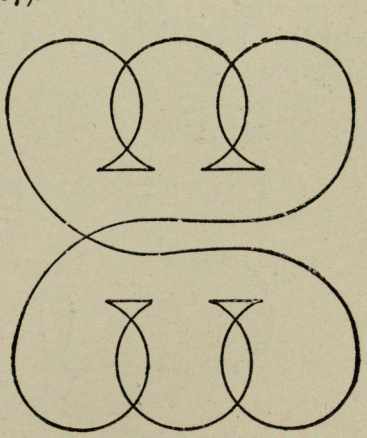


Fig. 67.—Continuous double cross-cut eight.

*Outside and Inside Cross-cuts* can be skated both forwards and backwards, and make very effective figures (Fig. 68).

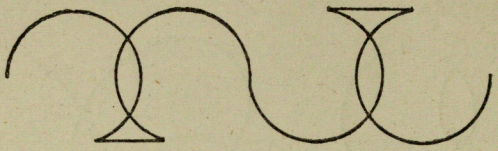


Fig. 68.—Continuous outside and inside cross-cuts.

*The Bracket Eight* can be skated commencing on inside or outside forwards (Fig. 69).

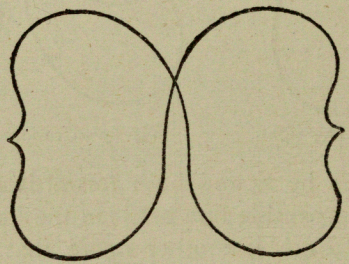


Fig. 69.—Continuous bracket eight.

Another method of skating the same movement is as in Fig. 70.

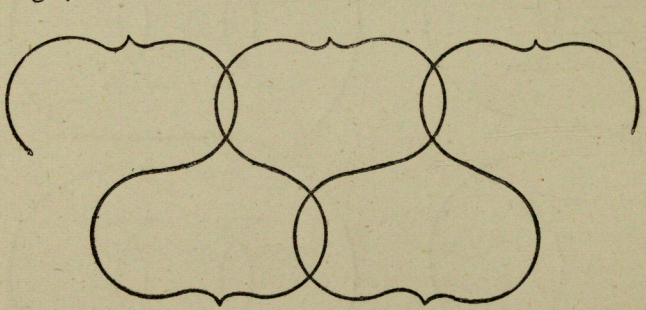


Fig. 70.—Continuous bracket turns.

Turn, bracket turn, and turn, is a difficult but effective movement.

The skater will notice that if commenced on the outside edge it brings in the two inside edge bracket turns, if commenced on an inside forwards it brings in the two outside edge bracket turns.

*Rocking and Counter Rocking Turns* are very difficult, but some beautiful figures can be skated by those skaters who have mastered them with ease (Figs. 71, 72)

Fig. 71.—Outside edge counter, and inside edge rocking turns.

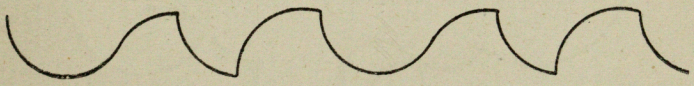


Fig. 72.—Outside and inside edge rocking turns.

The outside edge rocking turn together with the inside edge counter, or the outside edge counter and inside rocking turn, can be skated in this way continuously (Fig. 73).

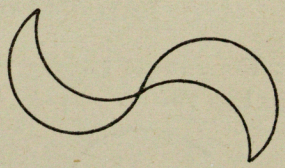


Fig. 73.—Continuous rocking and counter rocking turn.

This is very difficult, but opens out some very interesting figures. In Sweden I saw some very beautiful combinations by this way of skating the rocking and counter turns, some of which are given in the chapter on Swedish skating.

The counter rocking turn outside forward together with

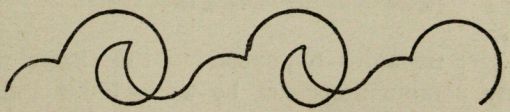


Fig. 74.—Continuous counter rocking turn, and Q's.

the Q make a very beautiful figure. This can also be done on an inside counter forward (Fig. 74).

Another way of skating this movement is as shown in Fig. 75.

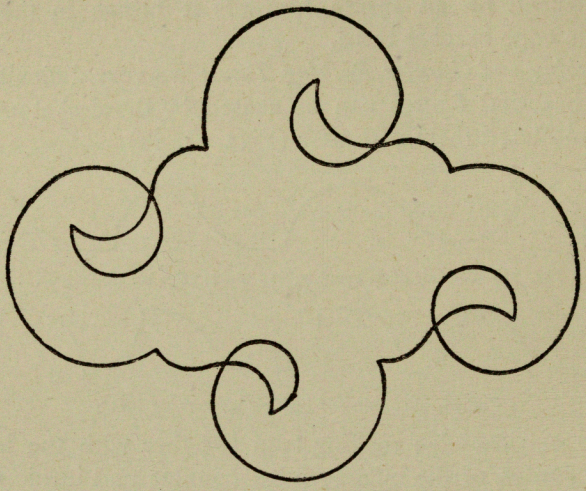


Fig. 75.—Continuous counter rocking turns, and Q's.

Continuous rocking turns and Q's can also be skated as in Fig. 76.

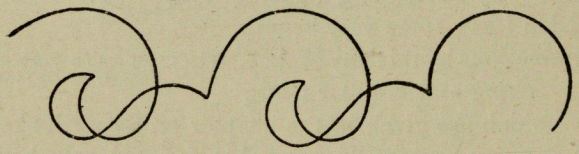


Fig. 76.—Continuous rocking turns, and Q's.

I will give no more examples, but the skater will find that many combinations can be worked out and skated continuously by means of the serpentine line.

## CHAPTER IX.

### GRAPE-VINES AND TWO-FOOTED FIGURES.

THE grape-vines have not been much appreciated in the English skating world. These figures, I believe, first came from Canada, where they are skated with care and great effect; but here few skaters have taken the trouble to learn them, for it has always been thought that figures should be skated on one foot, and these grape-vines are two-footed movements. They are not very difficult if the skater will only take a little trouble to learn them, and they are very effective. The figures cut upon the ice are very taking; besides, the movement in skating them can be made very graceful, and no bad habits can result from practising them.

The simplest is the single grape-vine, but they are all difficult to describe.

*Single Grape-vine* (Fig. 77). Start backwards with the feet wide apart, with the toes turned out, and both feet on the outside edge; draw the feet together with a backward movement, allowing the right to pass behind the left at A, and to lead while forming the curve A 1. The right still leads at B, but when it arrives at C the left passes it on an inside edge until it arrives at D; then a half-turn to the left is made, the turn at C slightly precedes the turn at D, and thus you will find the toes are

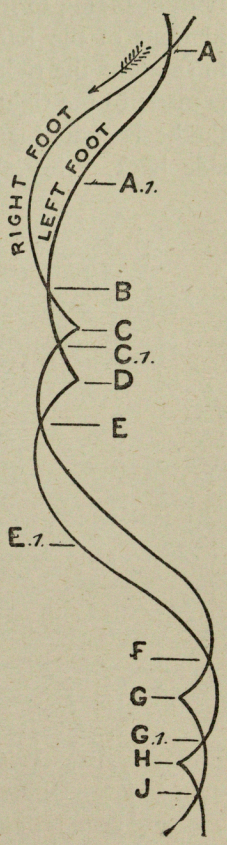



Fig. 77.—Single grape-vine.

brought together at C I. The right, which is then on an inside forward, is allowed to pass in front of the left, which will be on an outside forward on arriving at E. The curves E I are formed on a forward movement, the right and left both changing to the inside forward. At F the right passes in front of the left, but when it comes to G the left passes in front of the right, until it arrives at H, when a half turn is made to the right. The turn G precedes turn H, and thus the heels come together at G I—the right, then on the outside back, being allowed to pass the left, when turn H is made. The left is then on an outside back, and is allowed to follow in rear of the right; at point I the feet are in the same position as at starting, and the movement is repeated.

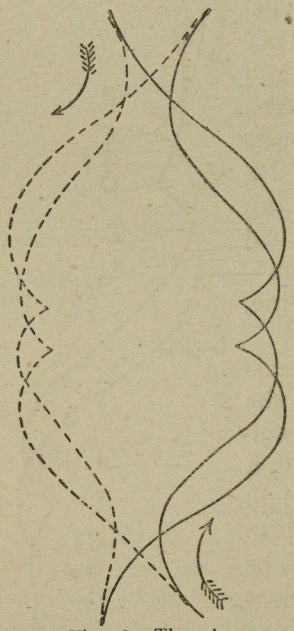


Fig. 78.—The scissors.

In this grape-vine the reader may notice that the loops, whether forwards or backwards, are skated with the right leading; and in the back turns (or "cusps," as they are often called) the toes come together; while in the forward turns the heels come together. These points should be borne in mind.

This vine can also be skated with the left leading, but in that case the body turns to the right and then to the left, instead of to the left and right.

*The Scissors* is simply one turn of the grape-vine, but when you come to G, in Fig. 77, you let the feet spread

out as far as they can upon the outside edges, and then draw them together as in starting, and let the right precede the left. This brings you back along the dotted line as in Fig. 78, and the same movement is performed until you come to the point where you started, when the feet are again allowed to part, and you start again over the same ground. This is repeated several times, always skating over the same ground.

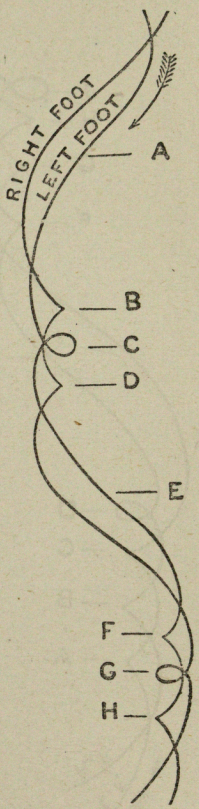


Fig. 79.—Double grape-vine.

*The Double Grape-vine* (Fig. 79) is very much the same movement as the single, but instead of a half-turn, you make a whole turn, or a complete revolution, and proceed in the same direction as at starting. In describing it I need not therefore follow every movement of the feet, as it is much the same as in the single vine.

Start, as in the single grape-vine, with the right leading, and form loop A; then bring the toes together, and make a complete revolution to the left. In this revolution you will find that you cut two turns, B and D, on the right, and a small loop, C, on the left. Then let the left precede the right, and thus the left will be leading in forming the curves E, when the toes are brought together, and a whole revolution is made to the right, describing turns F and H on the left, and the small loop G on the right. Then let the right precede the left, and you will be in the same position as at starting, when the same movements are repeated.

The skater will notice that the loops A and E are skated

on a backward movement, but this vine can be skated forward, when loops A and E will be forward movements.

*Pennsylvanian Grape-vine* (Fig. 80) is a curious movement, which it is difficult to describe, but the reader will be able to make it out from the diagram and the following notes.

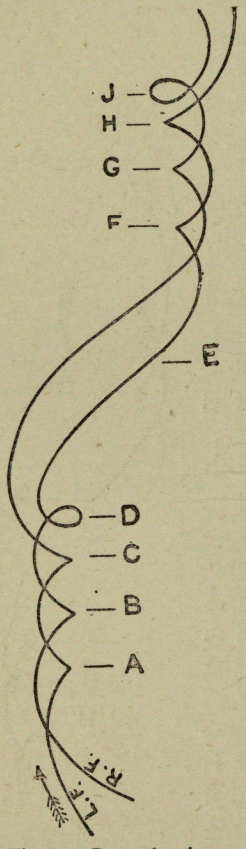



Fig. 80.—Pennsylvanian grape-vine.

Start with a forward movement, the right foot leading; then let the left run behind the right until the feet are locked together; the body must then be swung round to the right, and a complete revolution made with the feet thus locked together, during which revolution the turns A and C are made with the left, and turn B and loop D are made with the right. The left is then allowed to lead with a forward movement when curve E is made; then the feet lock together with the right behind the left, and a revolution is made to the left, in which turns F and H are made on the right, and turn G and loop I on the left. The right then leads and the same thing is repeated.

*The Philadelphian Grape-vine* (Fig. 81) is a double vine, and is commenced with a backward movement, a complete revolution being performed in cutting the cusps.

Start with a backward movement, the right foot leading. When the curve A is nearly formed, instead of completing the loop as in the single grape-vine

(Fig. 77), make the turn B upon the heel of the left foot by throwing the toe sharply round to the left, and allow it to run round in front, when a complete revolution is made to the left, forming, in all, the cusps B, C, D, and E. The left foot is then allowed to lead, and curve F is formed; but when the right arrives at G a turn on the heel to the right is made, the toe being well thrown round to the right; then a complete revolution is made, forming the cusps G, H, I, and J. The right foot is then allowed to lead, and the same movements are repeated.

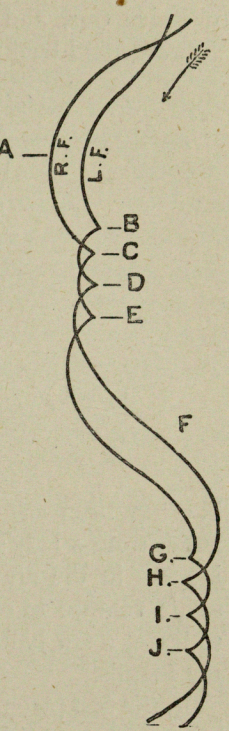


Fig. 81.—Philadelphian grape-vine.

There are several figures that Messrs. Vandervell and Witham describe as "Nondescript Figures," such as spins, toe-dancing, pirouettes, etc.; but as they are not of great importance, and our space is limited, I will refer my readers to their book for them, and will give only one more figure, called the Canadian Eight, which is performed on both feet.

*The Canadian Eight* (Fig. 82). To perform this commence with a sharp run backwards; then place the two feet upon the ice, one in front of the other, and make a circle, say to the right. When the circle is complete, swing the body over with the feet in the same position, making a change of edge by means of the serpentine line, and form a complete circle to the left. Circle after circle may thus be made continuously, and over the same ground. Note that if you lead with the

right, the right always leads, and impetus is obtained by the swing over of the body. The figure (which is a very effective one, and is worth learning) can be skated both forwards and backwards, with right or left leading.

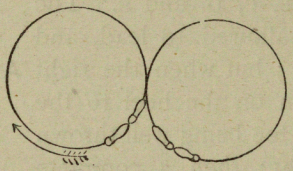


Fig. 82.—Canadian eight backwards.

## CHAPTER X.

### LADIES' CHAPTER.

*By Miss L. Cheetham.*

HAVING been asked to write a short chapter on skating for ladies from a lady's point of view, and taking as I do a keen interest in the art of skating, especially as regards my own sex, I venture to offer to all ladies and young girls anxious to learn, a few hints which I have found helpful to some of my friends.

In the first place, I think ladies as a rule mistrust their own physical powers. How often, when urging some girl to skate, have I received the reply, "Oh, my ankles are too weak!" Naturally, if any one tries for the first time to stand on an edge a little broader than a knife—generally too, in most unsuitable boots,—she will find a difficulty in keeping her balance. She therefore concludes she is not strong enough, and gives it up. This is a mistake; the more you practise, the stronger your ankles will become. But, first of all, have a good strong pair of boots with low *square* heels, *i.e.* straight

down at the back, no curving under the foot. Have the uppers of strong leather, and laced, very comfortable as regards your toes, but very tight over the instep and round your ankle,—in fact, they should not meet, as after being worn some time they will have stretched and be too wide. Then have your skates permanently fastened on to them. And, remember, this does not necessarily mean great expense. I had a pair made for 12*s.*, for a young girl, and on these she managed to pass the first-class test for the N.S.A. They had an ordinary wooden stock, and were simply screwed into the sole of the boot with six ordinary screws. You will find a great advantage in having them fastened on, as they are perfectly firm, and you can dispense with straps, which, besides being very ugly, often retard circulation and make the feet ache.

As to the skates themselves, most people look only at the footstocks and fastenings, and think any kind of blade right. With boot-heels, as I have described them, the blade need be very little longer than the toe of the boot, but should extend about an inch behind the heel. A radius of seven feet is, I think, the best if you wish to learn both large figures and loops, crosscuts, etc. A good width for the blade is either $\frac{7}{32}$ or $\frac{3}{16}$ of an inch, and should not be interfered with from toe to heel. The depth of the blade should be one inch, if wooden footstocks are used. The edge should be a right angle or even an obtuse angle as in the Monier-Williams blade; and the skate should be fixed, not in the middle of the boot, but nearer the inner side. As to the fastenings, I think that, for a lady, Mount Charles fastenings look less clumsy than wooden stocks, and are equally good to skate with. A great advantage is to have the skates as *light* as possible. The blade should be pointed both at the toe and heel like the Monier-Williams blade.

When you first put on your boots do not lace them too tightly, but skate for some time, and then, when they begin to feel loose, lace up more tightly. If, especially on the first day you skate, you find your feet ache from the unaccustomed strain, take off your boots for a short time, put on your others, and walk about, if only for ten minutes. When you put on your skating-boots again, you will find the aching sensation has gone. As to dress, the problem is, to have a dress wide enough not to impede your movements in making the bend necessary for a powerful stroke, and at the same time not so wide as to fly round in doing scuds, loops, etc. It is a difficulty, but one which a good dressmaker should overcome.

One thing which often prevents ladies learning to skate is that they are so afraid of falls. Of course, it is not pleasant to fall, and I think that the being seen to fall is even more disagreeable than the fall itself. Certainly no one can become a really first-rate skater without occasionally coming down; but one learns *how* to fall: and I have never known any one hurt, or rather injured, in any way by a fall while skating; nor, though I have had my share myself, have I ever been unable to go on skating the same day. The safest way to fall is to slip down without struggling to recover.

It would be unnecessary for me to say much on the subject of early steps and edges, since full instructions, as applicable to one sex as the other, are given in another part of this book. Upon one point, however, I wish to lay special stress, and that is, you must bend your knee well to take your stroke. This is what a lady very rarely does of her own accord. I have noticed in hundreds of cases that girls take their stroke from a straight knee, thus destroying all chance of pace. Bend your knee well to begin with, and as

soon as you are well on your stroke, straighten it, bringing up the other foot to its right place close *behind* the one you are skating on, with the toe turned out. Keep your head well up, your back straight, and your arms as still as possible, but without constraint or any apparent effort to do so; only the knee and ankle should at any time be perfectly rigid, all the other joints should be free and unrestrained. You will find at first, especially if you begin pluckily and boldly, that your arms *will* swing about; but as you get firmer and easier on your edges and turns, you must try to get them under control. Above all, avoid stiffness, and jerky movements, or such habits as crossing your arms behind your back, putting them in your pockets, or even keeping them in a muff, for, though this does not look bad, it must have a cramping effect on your shoulders, which play so important a part in figure-skating, and for which absolute freedom is necessary. The great secret of graceful skating is ease, or at least apparent ease; this often deceives learners, who do not understand why they cannot do at once what "looks so easy."

One hint, on learning the outside edge, I will give here, as I have found it very useful. You know already that the outside edge is a succession of half-circles on alternate feet. Now, suppose you wanted to go from one given point to another; for example, from A to B of Fig. 83. Most learners would start fronting B with shoulders and face. The consequence is that, on a true curve of outside on the right, they would find themselves at C. Stand at A, with your shoulders parallel to the line D, your face turned over your right shoulder towards B. Be careful about the position of the foot on beginning the stroke, *i.e.* turn the foot inwards, as in the diagram marked correct. When you come nearly to the end of your half-circle, turn your shoulders slowly

round (without moving your head, which must still face B) until they are fronting and parallel with E, then put down your left foot, the toe turned towards the right, and make your curve on the left foot, remembering to turn your shoulders again before you take your stroke on the right foot. When you can do these half-circles perfectly on both the inside and outside edges, take a ball and practise the whole circles. I think it an excellent thing to begin quite early to skate to a centre, as it teaches the skater to control her edges from the beginning. You will find it difficult to make the whole circle at first, so help yourself with the other foot put down *behind* the employed foot; just a touch will do, but it must be your aim to do without this touch as early as possible. Even at this stage of skating to a centre, mind you keep to the right side of the ball. Alas! what collisions I have seen and what narrow escapes I have had, because skaters are not clear on this point! It seemed to me such a matter of instinct to keep the right side, that, when asked which *was* the right side I was rather puzzled how to explain it. I believe the best rule for beginners is that the ball should

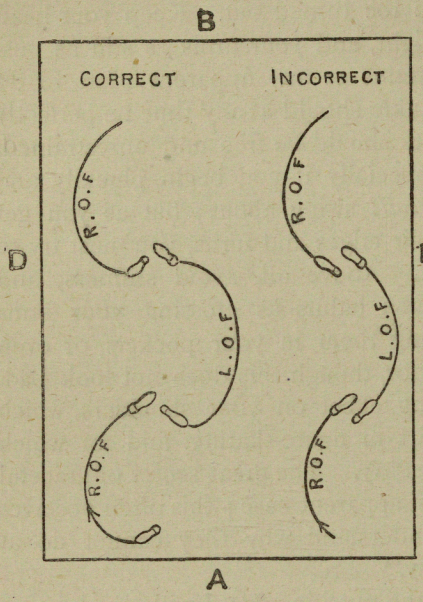


Fig. 83.

be inside your curve when you start your stroke, as shown by Fig. 84. And I believe this rule applies to everything except brackets, which have, of course, the point towards the centre—and Mohawks.

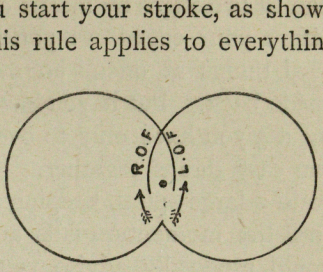


Fig. 84.

In learning to skate to a centre do not make the very general mistake of looking at your centre first thing. If you do so you will at once come to it, and your circle will be small. Map out with your eye the line you intend to take and look along it, only looking at your centre when you wish to come back to it. For one great principle of skating is that you must go towards the point at which you are looking. At the same time you must, above all things, avoid looking at the ice itself; but look in the direction which you wish to take.

Make your 8 as large as you can, beginning with a good bend, and do not have your feet far apart when you take your stroke, as you will by that greatly lose pace. Good skaters differ as to the mode of taking a stroke, with regard to the unemployed foot. Some get it from the flat of the foot, others from the toe. The latter style is rather given to spoil the ice, and when skating with some friends who do it I am often sprinkled with small ice showers, but I think that it is possible to get a stronger impetus from it, especially in skating large 3's, half-doubles, and doubles, both inside and outside, which have to be repeated many times without an extra step at the centre.

Do not try too much at first. I mean do not try 3's until you have all your edges perfect. A 3 is a combina-

tion of two edges by means of a turn; so, if you try to do it before your edges are perfect, you are trying to do three hard things at once—an outside forward, a turn, and an inside back. But if you have your edges perfect, when you try a 3 you have only to overcome the difficulty of joining two easy things together. The best test of an edge is to skate a large spiral, keeping a perfect position and balance until the momentum fails and you come to a standstill. I would especially advise you not to try the forward cross-roll too soon, for until you are very good on the outside edge, you will cross your feet before getting your shoulders into position. And when you do learn it, take care to keep your unemployed foot behind, until you are just going to put it down for the stroke. Nothing looks worse than to bring it in front at once, as so many learners do. And remember to put down your foot in the position given in Fig. 83. The back cross-roll, on the contrary, you may try as soon as you like, as it has not the same tendency to produce a bad position as the forward one. A very good figure to practise is the serpentine line, first on both feet, then on one, backwards and forwards.

As to the best way of learning a 3, so much has been said before that I shall content myself with reminding you of the very important part played by your shoulders. Suppose you are on the right outside forward, look the way you are going, and, before you try to turn, get your shoulders completely round, keeping your head as it was, and press slightly on the toe of your skate so as to get your turn clean. This matter of clean turns is very important, for ladies are as a rule deficient in pace, and cannot afford to lose any way by making turns with a scrape. The chief difficulty in learning a 3 is to keep the tail wide, *i.e.* to avoid curling in. This you must do by keeping back the left shoulder

(presuming that you are on the right foot) and looking over it in the direction you wish to take. A back inside 3, which is generally looked upon as difficult, may be made comparatively easy by turning the whole body round before the turn; here, as in the inside forward, and unlike the forward 3, the face must also be turned quite round till you look in the direction you were looking in before; then get boldly on your heel, and you will make a clean turn. Do not turn your head too quickly, but bring it slowly round; it is much prettier, and you avoid any jerky appearance. Of course there are times, if skating on a crowded pond or rink, when you must turn quickly in order to see that nothing is in your way.

The branch of skating which I think pre-eminently suited to ladies is hand-in-hand skating. The figures are, I have often been told, *the* prettiest things on the ice. Certainly they do give great pleasure to spectators; and if you have a thoroughly good partner with whom you have practised well, I do not think there is anything in skating more enjoyable. More than all, hand-in-hand figures are easy. And here I make an exception to the rule of not trying to get on too fast; learn the Mercury, or 3 scud, as soon as you can. I have taught it to girls who had only the faintest idea of an outside edge, and who have learned it in a day, and it is a very great encouragement to a learner. The partners do not skate the same step; and it is, of course, advisable to learn both: but I consider the step with the back cross-roll the lady's part, as her partner should do the steering. If you have ever taught any one to waltz or polka, you will have found it a good thing to count one, two, three. So in this Mercury I have found it of great advantage. There are three steps: begin on the right foot outside forward and turn a 3 (that counts

*one*), drop on to the left foot back outside (*two*), cross the right foot behind (*three*); then, if you are looking over your left shoulder, as you should on a right outside back, you will be ready for the 3 on the left foot (*one*), drop on to the right back outside (*two*), and cross the left behind (*three*). In this figure the tail of the 3 is made very short, for which reason some good skaters say you should not learn it till you can do a 3 with a long tail; but if you practise steadily at 3's to a centre as well, I do not think it does any harm to learn it, and, in fact, many ladies might learn to skate it who perhaps never would do a large 3. The other skater faces his partner and holds both hands, not crossed, and does "once back and forward" on alternate feet, taking care that his cross-roll forward, on which he does his 3, is done at the same time as his partner's cross-roll back. The steering in this figure can be brought to as much perfection as steering in a ball-room, and partners who go well together can steer in a rink crowded with all kinds of skaters without a collision. On a large lake, done with very long curves and in perfect time, it is a most

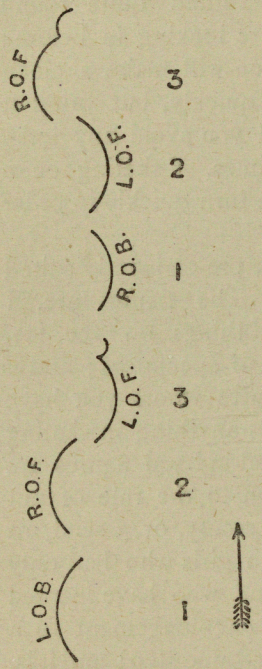



Fig. 85. Forward mercury.

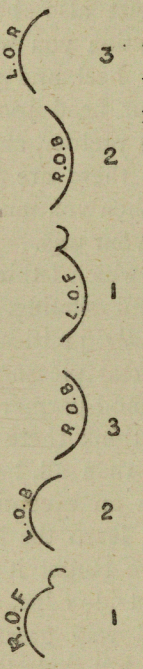



Fig. 86. Backward mercury.

delightful movement. I may here mention that both these movements are extremely pretty for a lady to do by herself, especially, I think, the forward one. You can get up a great pace, and steer where you like, in and out of groups standing on the ice. Some other effective though simple ways of travelling up and down the ice alone are "straight 3's" on alternate feet, inside forward Q's (a very pretty figure), and inside forward 3's, but this you will find a little harder. Of course, in all these you must take care not to make your curves too "curly," or, instead of travelling across the ice, you will find yourself going round in a circle.

One of the prettiest double figures is the forward Mercury, or "once back and forward," done simultaneously by two people with crossed hands, and starting side by side. This is rather difficult, as, to enable both to do the 3 at the same time, one partner must get well in advance of the other for the 3 on the right foot, and behind for the one on the left. *E.g.* A is to the left of B; in doing the 3 on the right foot A must get well in front of B (and here, if B stiffens his arms a little it will make it easier); in doing a 3 on the left, B must get well in front of A.

Then there is the Q scud. You do a forward Q on the right foot, facing your partner and joining right hands; then a back cross-roll; then repeat the Q on the right, and back roll. When you have just done the turn of your Q you let go the right hands and take the left, your partner doing a Q on his left foot, and crossing the right behind. Remember that if the Q is done on the *right* foot the right hands are joined, and *vice versâ*. This changing of hands should be done quite slowly, not with an appearance of hurry, as if you must take hold of hands to keep your balance, but deliberately, as it gives a look of ease to the

figure. Of course, after skating for some time, you should change to the Q on your left foot, and your partner to the right; and this, if you have practised well together, should be done without stopping, and even without any word or sign, like reversing in a waltz.

Mohawks make another very pretty double figure. The "Round Mohawk" is done in a circle, the larger the better, and consists of four strokes. For this the partners stand side by side, crossing hands. Suppose you and your partner begin on the left foot outside forward (1), at the same moment you drop the right foot behind the left on the outside back (2), continuing the same curve; then you bring the left foot in front of the right on the inside back (3), and do a forward inside on the right (4), when you repeat with left outside forward. Of course it can also be skated starting with your right foot instead of your left. This figure should be done with immense curves, at a good pace, and, above all, in perfect time, when it is very effective. Mohawks can also be done by two, three, four, or even six persons hand in hand, as a travelling figure in a backward direction, when the movement has only three strokes. Forward outside on the right (1), left outside *behind* (2), cross the right over *in front* on the inside back (3), and repeat on the left.

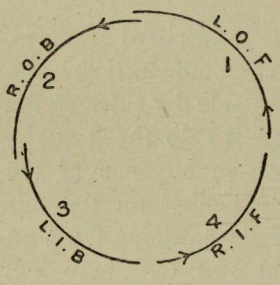


Fig. 87.—Round Mohawk.

Another pretty figure is made up of Q's and reverse Q's. A does a forward Q on the right, and then one on the left; B does forward reverse Q's on alternate feet, taking care that his serpentine line, which will always be in and out backwards, is done at the same time as, and on the

foot corresponding to, his partner's, which will be out and in forwards, *i.e.* right with right, left with left.

The half-double scud is also pretty, although I always think it rather cramped. The partners face each other, holding hands. The gentleman does two strokes on the forward cross-roll, beginning on the right; the lady two on the back cross-roll, beginning left: then they let go hands, and he does a forward half-double; she, a back half-double, —which, if properly done, will leave them facing each other as at first, when they repeat on the other foot. I do not advise you to learn this before you can do a good-sized half-double to a centre, as it is apt to make you do half-doubles with a good deal of spin, a fault which will have to be corrected afterwards.

Another figure is as follows. The partners face each other holding both hands; A skates a forward Q on the right, then a back Q on the left, taken up on the cross-roll; B skates exactly the same figures, beginning, however, with the back Q.

Last, but by no means least, there is the hand-in-hand rocking turn. This is one of the most delightful things to do on the ice, and, done at a great pace, makes one feel what flying would be like. You must not be afraid of the name "rocking turn" and think it very difficult. The forward rocking *turn* is by no means difficult, the holding the edge afterwards is the difficulty; but with a partner this difficulty entirely disappears, and I have seen this figure learnt very quickly by ladies who could not do much skating. With crossed hands you take a few long powerful strokes, then a very long stroke on the right outside; B, who is the gentleman, and on A's left, getting well in front of A, who hangs back a little, not, however, so much as to spoil the pace. Then, at exactly the same moment, both

do the rocking turn, and are on the back outside, B leading. They hold this edge for a considerable distance, then let go hands, and A glides (with the help of a *very* gentle pull) in front of B, when they take hands again and repeat the movement on the left. This *passing*, which, though easy, is very effective, was invented by a friend of mine (Mr. S. H. Fairrie). We had done rocking turns a great deal together, and found that on the back edge we could glide on side by side without holding hands. Then it occurred to us that if I passed in front of him we should solve the difficulty of reversing our positions ready for the left foot, when the gentleman, if, as is most probable, the heavier skater should be on the lady's right hand. We found it answer admirably, and we have done it with two other skaters, three passing the fourth, so that, if after the turn we were in the order A, B, C, D, we should after the passing be D, C, B, A. Very large Q's done hand in hand make an extremely delightful figure, and even double Q's can be done.

Waltzing on skates can also be done in two ways. One, which for years I have done with my sister, is the ordinary waltz step, and we can reverse and go backwards and forwards. In the other, each partner does a once back and forward, and they can reverse quite easily simply by one doing a cross-roll forward, and the other backwards. When done quickly and gracefully it is very effective.

One more thing as regards hand-in-hand skating I must mention, and that is, that some years ago Sir Charles Metcalfe suggested the combined figures done hand-in-hand. It is possible to do every turn, and even double turns, hand-in-hand; and I think if we could get four ladies and four gentlemen who had practised them well, they would be very charming; the chief thing, of course, is for the partners to get in front or hang back as occasion requires.

As to combined figures, which I myself prefer to any other kind of skating, I shall only say a few words, as both in this book, and in "Figure Skating," by Messrs. Vandervell and Witham, a book to which I personally owe a great deal of my skating, and in "Combined Figure Skating," by Mr. Monier-Williams, much better directions are given than I could give. I simply recommend every lady to learn as much of them as she can. I know nothing more fascinating than a good 4 or 6 with a good caller, and when *everybody knows the calls.* The only advice I give you on the subject is, study the names of the figures well, and this you can do without ice. Long ago I used to read over the names of all the figures in Mr. Monier-Williams' book and think them out. By doing likewise you will get the system so well into your head that even a perfectly new figure will not bring you to a standstill. And how provoking it is to stop a figure which is going well because you are not sure what the call means! and if it is a lady who so stops it, how superior our masculine friends look! If you know what the call means, even if you cannot do the figure the first time, you can get into your place and not stop the set. Therefore, I repeat, read up the names, and do so when you have no ice to skate on, so that when the ice comes you will have all your time to devote to actual skating.

Then there is continuous skating, by which I mean skating altogether on one foot. Many good skaters think it decidedly the highest branch of the art. It is certainly the most difficult, but I do not think it is ever very pretty for ladies. Indeed, if your time is limited, as is most probably the case, frost being so rare and fickle, I advise you to work at scuds and combined figures. There is no doubt that they are the most elegant; and certainly, if to *appear*

a good skater is your object, you will attain it much more quickly by them than by continuous figures. At the same time, I think the practice of continuous figures vastly improves general skating. Besides, they are most fascinating, and if you once begin you cannot leave off; and certainly, as a matter of power, it is quite *possible* for a lady to do them provided she has opportunity and great perseverance. Continuous Q's done *slowly*, and with the kick minimized, do not look bad. I think myself, and in this opinion several of the best skaters agree, that all continuous figures should be done *slowly*. I am aware that foreigners do them very quickly, but I think that speed must necessitate so much kick as to make them ugly, and certainly not suitable for ladies. I know that this was the case as regards some foreign champions whom I have several times seen. Their speed and agility were marvellous, but, in my opinion, too acrobatic to be quite gentlemanly, to say nothing of ladylike. Continuous loops are pretty if done with scarcely any kick, and the only way to do this is, if you are skating them on the left foot forward, for example, to put your chin almost on your left shoulder for the outside loop, and almost on your right shoulder for the inside loop, as the turn of your head brings you round at once. Continuous cross-cuts are, I think, easier, but require more kick to get the impetus.

Continuous bracket Q's are easy, beginning on the outside, more difficult beginning on the inside. If you practise continuous figures you must not expect to make the same quick progress as in the other kinds of skating. The figure I found hardest to learn was an 8 (invented by Mr. Monier-Williams) with two bracket turns and two rocking turns; it should be done, of course, repeatedly, and with circles of at least seven or eight feet in diameter. The great difficulty is, of course, to *gain* pace on every turn. But

I do not think that in this and other continuous figures it is so much strength as knack which is needed, and therefore I think there is nothing which men can do on ice which, given time and opportunity, we are physically unable to do. At the same time, I admit that there are some figures which, though they do not look bad for them, are not really elegant or graceful for us. One figure of my own invention is my name, as follows:—Right outside back loop, change, inside back loop, change, back 3, forward inside loop, change, change, forward inside rocking turn, back inside loop (Fig. 88). The difficulty lies in making the letters the correct size relatively, and the dot of the *i*, of course, is wanting.

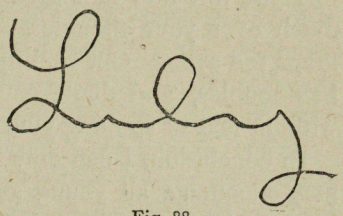


Fig. 88.

So far I have not referred to two-footed or Canadian skating. I have always been taught to look upon it as an inferior branch of the art, and yet some of the figures are very pretty, and for us very suitable, and easy to learn. When first learning to go backwards on both feet you will find one foot has a tendency to slide behind the other. If you will encourage this tendency, turning your head over the shoulder of the foot that is behind, and slowly turning it to the other side as you change the relative positions of your feet, you will find yourself doing a very pretty travelling movement, and, by continuing your strokes to a centre, a very simple but effective 8. A figure which is not generally considered pretty—the "spread-eagle"—may also be utilized as a travelling figure, and is very easy. Make a sort of *chassé* step with the left behind the right, then turn your toes out with the heels near together, and do half a circle,

the left leading, when the right must *chasse* behind the left, and you repeat the spread-eagle, the right leading.

As to loops, which I always consider under the head of Canadian skating, I think that, done on a forward or backward cross-roll, either single or double, they are very pretty; but you must try to do them without a great swing of the unemployed leg, and with your feet close together. For this you will find it a great help to turn your head very much over your shoulder. I do not advise you to learn loops too soon. Get well up first in long curves, 3's, large half-doubles, and doubles, and then you may learn loops without fear of spoiling your form.

In conclusion, I can only hope that anything I have said may encourage all young skaters of my own sex to appreciate at its true value what has been one of my greatest pleasures and recreations during the past few years. Skating is not a very expensive amusement, much less so than riding, for example; less tiring, and, I think, much prettier than lawn-tennis; and I am quite sure that it is decidedly beneficial from a health-giving point of view.

Unfortunately the Southport Glaciarium, where I learnt most of what I can do, has been closed. Never properly supported by the town, it has financially, though in no other respect, been a failure. I believe an effort is being made to resuscitate it, and, should it be re-opened, I most heartily recommend it to all skaters as an excellent place in which to learn or to practise what has already been learnt. It is large enough for two or three sets of combined figures at once; and the surface of the ice has been brought to great perfection. I know many people who have come to Southport for periods of from a few days to three or four months on purpose to skate, and have invariably been well repaid for their trouble.

## CHAPTER XI.

### SKATING IN SWEDEN.

LAST winter the London Skating Club received an invitation from the Skating Club at Stockholm, requesting them to send over representatives to take part in the international contest that was to take place at Stockholm on the 17th of February. A party of four was formed to go over—not to take part in the contest, but to show the Swedes the English style of combined figure-skating. The writer was one of the four who were to start on the 7th of February, so as to have a week's practice together before the contest took place. Unluckily, at the last moment, one of us found that he could not leave England, so the party finally consisted of three only.

On arriving at Gottenburg we were met by several of the members of the Gottenburg Skating Club, who invited us to visit their rink, which we were glad enough to do, and were keen to have an afternoon on the ice, as we had only had one day's skating in England that winter. We found the ice very hard, and one of us who was skating with Monier-Williams blades found they were useless. At Stockholm we were met by several members of the Stockholm Skating Club, who gave us a most hearty reception. We were made honorary members of the King's Rink, and had free use of the public rink whenever we wished to skate.

We were naturally all anxious to see the well-known Finland skaters, Mr. Rudolf Sungrèn and Mr. John Catani, as we had heard great accounts of their skating; and we were not disappointed, for they surprised us by the great power they possessed over their skates, in the most difficult

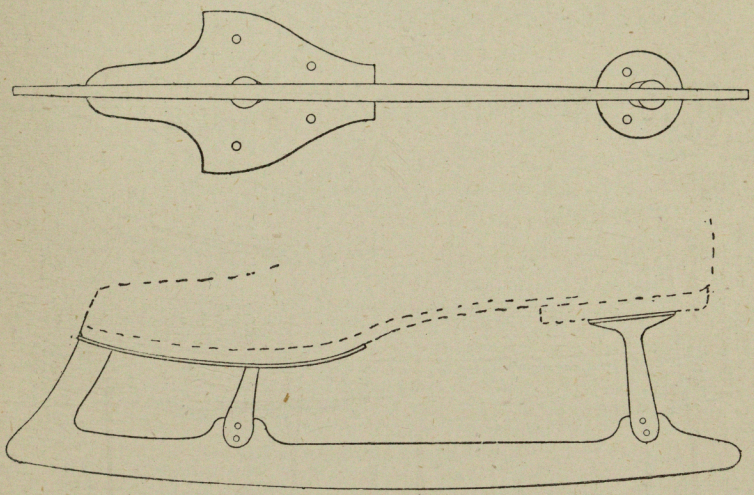
movements. Some of their figures will be given later on. Madam Frank, a lady skater from Finland, was also wonderfully good, and I have never seen a lady skate with such ease and so gracefully; her toe spins were charming to witness, and she had the good taste not to skate figures that were not graceful. Mr. Ivar Hult, of Stockholm, also astonished us with some of his elaborate figures.

The contest took place on the 17th of February. Finns, Norwegians, Swedes, and one of us by request, took part in it; but, as regards individual skating, we cannot come up to those who have three and four months' practice every year. It was a pretty sight. Over twenty thousand people surrounded the rink, and the Crown Prince gave away many handsome cups to the successful competitors.

We gave a selection of figures in combined skating, and a handsome cup was presented to us for the London Skating Club.

Figure-skating in Stockholm is the national sport of the country; every one skates; and as they have three or four months' skating every year, some of them are bound to become first-rate skaters. But their style is very different from ours: the unemployed leg is never at rest, it is always swinging far away from the employed, and the employed knee is always bent; the arms are also not kept to the side, but are allowed to wander wherever the skater wishes, and often I noticed an arm stretched out well above the head. Now these points in England are considered bad form, but the Swedes consider them quite the reverse; and I believe that their great power is gained by the swing of the unemployed leg, and some of their figures could not be skated without it. Their great figures are continuous figures; and it is wonderful what they can do upon the one foot, and also at what a pace they skate these figures.

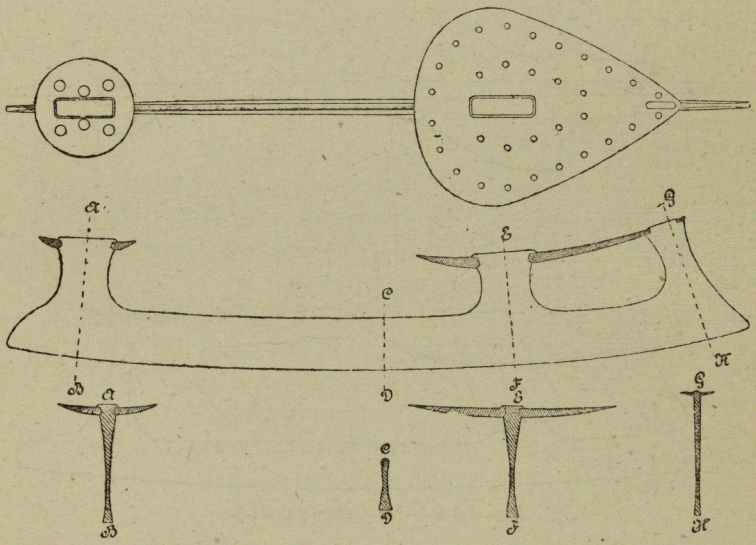
Now as to the skates these different skaters use. They mostly adopt the same footstock as we do in England, viz. the "Mount Charles" or skate screwed to the boot; but the blades are very different, and just the opposite of the "Dowler,"—they are broad in the centre, and taper off to nearly a point, both at toe and heel. They are also very much rocked, by which I mean ground to a small radius,



Figs. 89, 90.—Mr. Catani's skate.

generally about five feet or less. Mr. Catani's skates were very high off the ice, and higher at the heel than the toe. Mr. Sungrèn's were much the same. Mr. Catani and Mr. Hult have kindly sent me drawings of their skates, which may be interesting to the reader (Figs. 89–92). The Norwegian skates were very heavy, very thick in the blade, and high off the ice. The Swedish skates were much the same as Mr. Catani's, with the exception of one used and invented by Mr. Richard Krause of Gottenburg.

This is a very novel skate, in which you can alter the radius without removing the skates. As it will come out in England this year and, I think, will be very popular, I will give a description of it and diagrams (Figs. 93, 94). Some figures which are impossible to skate upon a flat skate, such as a seven-feet radius, are easy to do on a five-feet radius; therefore, this skate will accommodate itself to all figures.

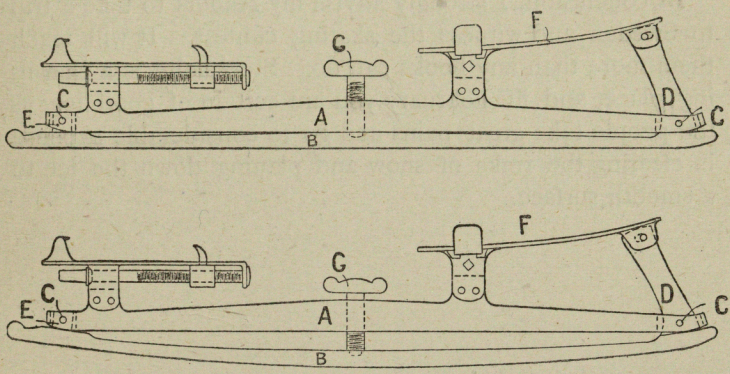


Figs. 91, 92.—Mr. Ivar Hult's skate.

In the Krause skate, the blade of the skate consists of two parts, viz. a top or ridged part, A, and a bottom or sliding blade, B, which are connected at the ends by means of small bolts or pins, CC.

In the diagram the sliding blade, B, is shown, for example, furnished with vertical projections, D and E, which pass through slots in the ridged part, A. The front projections,

D, of the sliding blade is extended, so that it forms a support for the front or sole-plate, F. To prevent any strain between the sliding blade and the sole-plate, the hole through which the connecting pin is passed is made oblong. At about the middle of the ridged part, A, a screw, G, is applied, which, when it is screwed down, presses against the sliding blade, so that the latter can be curved to any required radius. The bottom end of the screw enters a hole in the sliding blade, which is there to prevent it from moving laterally.




Figs. 93, 94.—The Krause skate.

One and all of these skates were wider at the middle of the blade, and tapered off both at toe and heel, and were very much rocked. I fear the English skater will find himself rather at sea when first he tries them, for the balance seems to be generally upon the centre of the blade, and the Swedes always turn upon the centre, not upon the toe and heel as we do in England. They are seldom upon the toe except in doing toe spins, at which they are very clever, and it is wonderful to see how, at great speed, they can jump upon the toe of the skate and revolve like tops.

The contest consisted of six self-selected figures and free figuring.

On pages 93–95 are drawings of the 18 figures skated by the best three men—Mr. Rudolf Sungrèn, first prize (Figs. 95–100; Mr. Ivar Hult, second prize (Figs. 101–106); and Mr. John Catani, third prize (Figs. 107–112).

Mr. Hult has kindly sent me several others (Figs. 113–117), which will be new to English readers, and will give an idea of the capabilities of the Swedes (p. 96).

In conclusion, I strongly advise my readers to take a trip to Sweden and witness the skating contest. It will teach them more than any books can do. Stockholm is a charming place, and in February you are certain of good ice, as the people take great pains and go to considerable expense in clearing the rinks of snow and planing down the ice to a smooth surface.

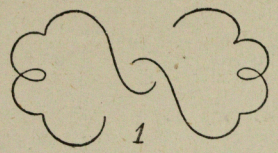



Fig. 95.

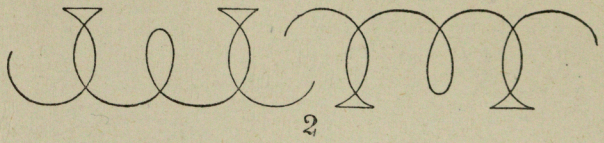



Fig. 96.

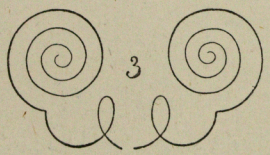



Fig. 97.

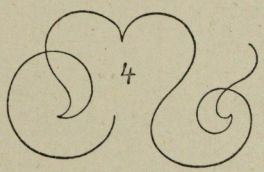



Fig. 98.

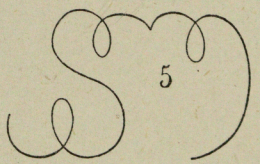



Fig. 99.

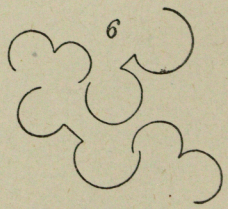



Fig. 100.

RUDOLF SUNGRÈN, First Prize.

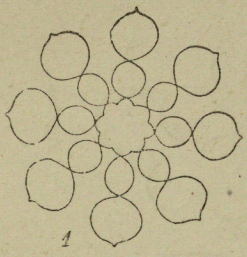
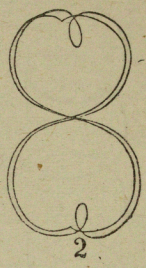



Fig. 101.

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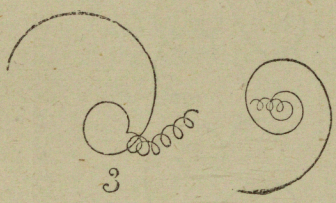
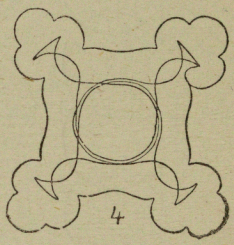



Fig. 103.

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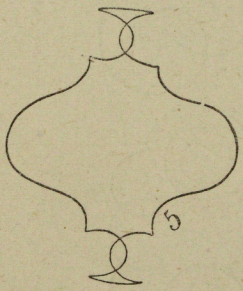
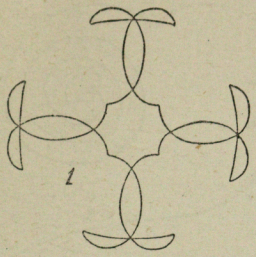



Fig. 105.

Fig. 106.

IVAR HULT, Second Prize.

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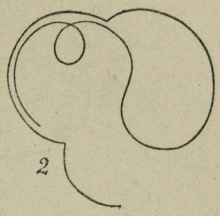


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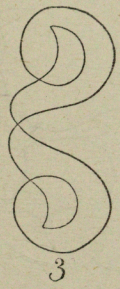


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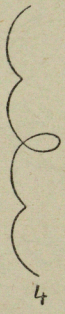



Fig. 110.

Fig. 111.

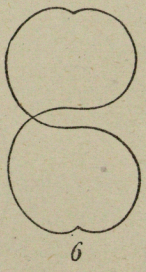



Fig. 112.

JOHN CATANI, Third Prize.

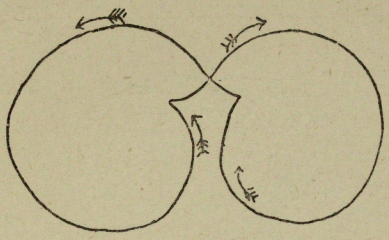
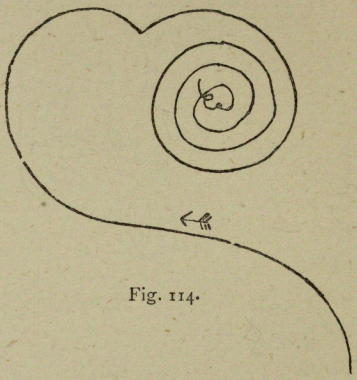


Fig. 113.



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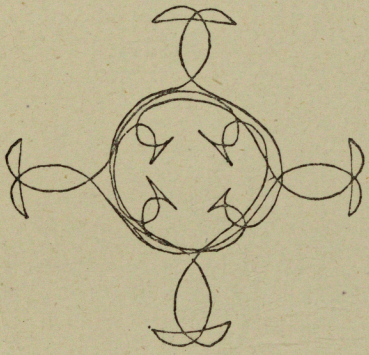


Fig. 115.

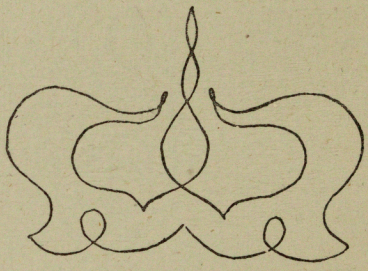


Fig. 116.

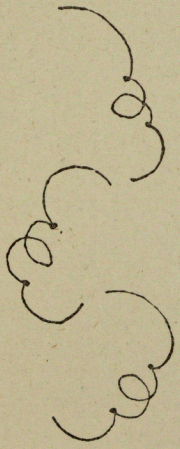


Fig. 117.

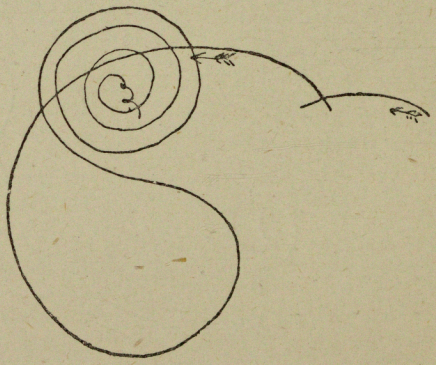


Fig. 118.

## CHAPTER XII.

SPEED SKATING.—BY N. G.

If skating be the poetry of motion, speed-skating, or fen-skating as it is sometimes called, is the epic as distinguished from the lyric branch of the art. It is simpler, more primitive, and more direct, but it is not without its grace and grandeur. To move over the surface of the ice through long distances with ease and rapidity, to stop and turn, not according to any set figure, but as necessity or sudden impulse dictates, constitute an art not easily acquired. It is rarely, if ever, acquired except by those who live in localities where nature furnishes long reaches of ice, unencumbered with snow, during the winter months, and who have availed themselves of these advantages from earliest youth.

This direct style of skating has been called "speed-skating," from its most marked excellence; and "fen-skating," from the district where alone in the British Isles it has been much practised and brought to anything like perfection. "Fen," in this combination, is not used in its general sense, but as applied to the Fen Country, or great level of the fens, which is a large district, with an area of thirteen hundred square miles, and occupies large portions of the counties of Cambridge, Lincoln, Norfolk, Huntingdon, and Northampton.

This district is, roughly speaking, forty miles long from north to south, and thirty miles wide from east to west. It lies at one level, which corresponds almost exactly with the mean level of the ocean. It receives on the west the waters of the Witham, the Welland, the Nene, the Ouse, and the Cam; and these have to be carried across its surface to the

estuary called the Wash, through channels artificially confined by strong and continuous embankments. The Fen itself has to be drained artificially. Every field in the district is divided from its neighbour by a ditch sufficiently wide to afford a Fenman a skating-track, but not too wide to prevent him from leaping it by the aid of a pole. These ditches communicate with wider arterial drains, which convey the water to the rivers, over whose banks it is pumped by wind or steam-power. Thus, in winter, the whole of that country is intersected by a network of highways and by-ways, by means of which the skater may journey almost whithersoever he will. Besides this, the system of drainage introduced by the Dutch engineer Vermuyden provides large reservoirs for the surplus water of the rivers in time of flood, which, being shallow, are easily frozen, and constitute splendid skating areas. In fact, the Fens, or Fen Country, is, on a smaller scale, the exact counterpart of the kingdom of the Netherlands, and—like circumstances producing like results—while the Dutch have become renowned as the best speed-skaters in Europe, the Fenmen have been known for generations as the fastest skaters in England.

The author of a treatise on "How to get on in the World" commences with the instruction, "If possible, contrive to be born north of Tweed." This advice, though sound, is not available, and the rest of the treatise was more usefully devoted to defining the qualities which make the North Briton eminently successful in the battle of life, and how to acquire them. So, if it be the ambition of any one to cut the record for speed in skating for any distance over a quarter of a mile, he would do well to be born and bred within the quadrilateral defined by the towns of Peterborough, Lincoln, Wisbech, Cambridge. But, after all, there is nothing miraculous in the skating speed of Fenmen.

Any of the inhabitants of London who have access to the Serpentine or the Welsh Harp, or any of the denizens of any other part of the country who have access to an ice area of two hundred yards in length, such as flooded meadows, lock-bound canals and shallow lakes afford, could, if they wished to do so, by perseverance in the practice of the direct style of skating, qualify themselves for a race, or a winter trip through the Fen Country or Holland, as well as if they were native to those districts.

Probably the reason why residents in the upland counties have hitherto never more than half acquired the art of direct skating is because the stimulus of competition and the allurements of travel are never presented to them, and the more active and ambitious turn their attention to the more florid style of figure-skating. On the other hand, in districts where the skater can travel from fifty to a hundred miles in the course of a short winter's day, and where speed in skating is constantly being put to the test by races, the inhabitants cannot be induced to practise any other style. It is a singular fact that there is scarcely a figure-skater worthy of the name throughout all Holland, though almost all of its inhabitants, men, women, and children, are proficients in the art of direct skating.

National and local sports are often suggested by natural facilities for their practice, but when once established, custom, imitation, and emulation perfect them, and the appetite for them becomes so strong that they flourish even where they have to be pursued under difficulties. Thus, no doubt, the unrivalled greensward of England suggested and induced the national sport of cricket; but the English, having once tasted its sweets, carry it with them wherever they go, and practise it under the most trying conditions. Since speed-skating is not only an art, but also a means of

travel and an athletic sport, we may hope that a nation whose love of travel and competitive games is proverbial will in the future give it as much prominence in their national life as it deserves.

The history and the literature of skating, and the part it has played in war and social life, the means by which its implements and practice have become perfected are all matters of great interest. Readers interested in this subject will find much information in "Schaatsenrijden," written by Mr. J. van Buttingha Wichers, the accomplished secretary of the Dutch Skating Association, which abounds in quotations and pictorial illustrations derived from the authors and artists of Holland. Mr. Hijklema, in his "Handboek voor ijs-sport," devotes a large space to skating in the olden time. Messrs. N. and A. Goodman, in their treatise on "Fen Skating;" and Messrs. Vandervelt and Witham, in their "System of Figure Skating," have each a chapter on the history of skating. In these works, much quaint and curious information has been gathered together on the rise and progress of skating, which cannot be obtained elsewhere.

In so short a chapter I must neglect all this, and simply tender such practical advice as a reader who wishes to be able to skate with ease and delight fifty to sixty miles a day over such ice as nature unaided affords, or who may have some ambition to distinguish himself as a fast skater in competitive contests will be glad to receive.

The advice we offer is not, however, confined to the sterner sex. Perhaps racing on skates is not likely to be patronized by the women in this country as it is in Holland, but the rare delight of travelling over ice, through the keen, exhilarating, frosty air, is much appreciated by English ladies when once they have acquired the art. I have skated with a lady from Cambridge, past Ely and Littleport, to Denver

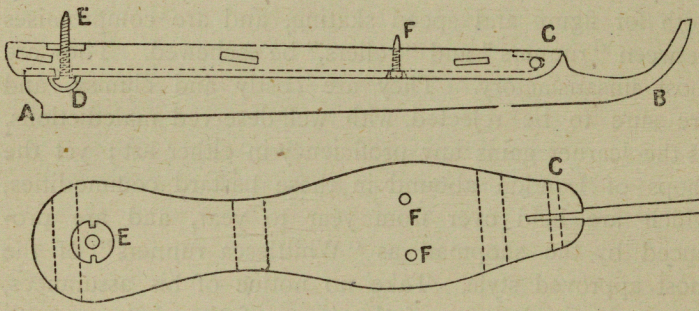
Sluice, and returned to Ely—a distance of fifty miles, and over ice which was in some places covered with snow and presented all the difficulties which usually occur in so long a journey—without any assistance or undue fatigue. Two years ago, another English girl in the middle of a day's journey over the canals in Holland, skated four miles and a half, from Halfweg to Haarlem, in fourteen minutes.

The first anxiety of the novice will be to obtain good skates. There is but little difficulty in defining what constitutes a good pair of skates for this style of skating. At the outset let all forms of skates which affect to be suitable both for figure and speed skating, and are compromises between "runners" and "rollers," be eschewed. They are most unsatisfactory. They are costly and clumsy, and are sure to be rejected, with well-deserved maledictions, as the learner gains any proficiency in either art; yet the shops of London abound in these bastard commodities, which are held over from year to year, and are produced by the shopman as "Whittlesea runners" of the most approved style. Take no notice of his assurances, but apply the bottom of the irons of the skates one to another, and hold them up to the light. They should almost, *but not quite*, touch one another throughout their whole length, from the heel to the curve of the prow. They should not, however, be quite parallel, but so slightly convex that a space not greater than could be occupied by a stout postcard should be visible between them at the extremity of the heels and toes.

The following "requisites of good running skates" were drawn up by the author for the National Skating Association, and adopted by its executive committee for the direction of manufacturers. They are here slightly amended according to the dictates of subsequent experience. It

is only fair to say that many of the details were derived from the report of the committee of the St. Ives branch of the Association, which gave great attention to the subject.

The *blade* of the skate (A B) should be made of iron, with at least $\frac{3}{16}$ of an inch of hardened steel welded on to the lower part, and continued from the heel end to the end of the prow. This steel should be tempered to a light straw colour (scale of hardness 5·5). The sides should be perfectly straight, and the edges below as sharp and angular as possible.




Figs. 119, 120.—A B, blade; C, steel rivet; D, notch; E, heel screw; F F, sole screws.

*Curve.*—The bottom of the blade should be almost (but not quite) flat from the hind end, which should lie perpendicularly below the ball of the heel of the skater, to the rise of the prow, which should lie about $\frac{1}{2}$ an inch in front of the wood of the skate. In this length the curve should be so slightly convex that when placed on a level surface the heel and toe ends should rise about $\frac{1}{64}$ inch; and in addition to this the last $\frac{3}{4}$ inch of the heel end should be ground off so as to stand $\frac{1}{32}$ of an inch above the level at the extreme end.

The *prow* should rise very gradually for the first inch, then more abruptly. The end should never be more than 3 inches in front of the wood (or toe of the boot), or two inches from the ice. The width of the steel keel should be from $\frac{1}{8}$ to $\frac{1}{10}$ of an inch where it touches the ice, and it may slightly decrease upward to where it is set in the groove of the wood. In depth it should gradually decrease from $\frac{3}{4}$ of an inch below the wood of the heel to $\frac{1}{2}$ an inch below the wood at the toe. A part of the iron should be carried upward, to be fixed in the toe of the wood, so that its upper edge is flush with the surface of the wood, leaving a notch below it through which a stout steel rivet (C) should run in passing from one side of the wood of the toe to the other. Just above the heel end should be a notch (D), so arranged as to be held by the broad head of the heel-screw (E). The end of the prow should be as blunt or rounded as possible.

The *heel-screw* (E) should be about $1\frac{3}{8}$ inches long, so as to project $\frac{5}{8}$ of an inch above the wood into which the nut which binds it should be let. It should be $\frac{1}{4}$ of an inch thick. The sole-screws (F F), two in number, should pass through from the bottom of the wood, one on each side of the iron, and be made of steel tempered to a deep blue or violet tint $\frac{3}{16}$ of an inch in diameter, and project $\frac{3}{16}$ above the surface of the wood.

The *wood* should be red beech, and be about $\frac{3}{4}$ of an inch thick, and extend from somewhat more than an inch behind the heel-screw to the end of the toe of the boot, or a little behind the commencement of the prow of the blade. In no part should it exceed $2\frac{1}{2}$ inches in width, and should be shaped in the usual way, *i.e.* reduced at the toe and under the instep, and bevelled underneath all round. The woods of the skates should not be right and left, nor should they

be hollowed out to receive the heel or ball of the foot, but should be perfectly flat throughout. There should be a transverse hole behind the heel-screw to receive the heel-strap, which passes round the ankle, and two more to receive the toe-strap, which is crossed and fastened in front of the foot.

The *straps* should be of the best quality, and cut from bridle butts (*i.e.* from the best and stoutest part of the hide). There should be an abundance of holes, not more than half an inch apart. The straps, when buckled over the front, should leave about four inches of surplus length.

Under the directions of the St. Ives branch of the N.S.A., Messrs. Colquhoun and Cadman, of the Douglas Works, Sheffield, have made running skates which embody all these requisites. They are called the Standard Racing Skates. Another slightly modified type of skates, called the Standard Hockey Skates, are made by the same firm. These are slightly stronger and heavier, and have a little more curve to the keels. They were designed as being better suited to the game of hockey on the ice than the "racing" variety. The writer, however, finds the Standard Racing Skate strong enough for all the incidents of travel, and suited to all the exigencies of the glorious struggle of hockey.

To order running skates from a well-known firm will save the purchaser much trouble, but if he is compelled to purchase on his own judgment, the "requisites" given above may assist him. He should, however, be warned against buying skates of walnut wood. This wood is extremely handsome, and it has been the fashion to use it for skates of a superior quality. A novice, wishing to be equipped with the best style of thing, regardless of expense, is very likely to be persuaded to buy walnut wood skates profusely inlaid with ornamental brass. The brass is not requisite,

and adds to the weight, but this is of little consequence. The walnut wood, on the other hand, has the bad habit of splitting just at the wrong time.

The reader may perhaps wonder that the various appliances of clamps and clutches have passed unnoticed, by the aid of which it is designed to dispense with both straps and wood work, and of which the Acmé skate is the most popular, if not the most successful, example. These appliances have seldom been fitted to running skates, which have to do rougher and stronger duty than figure skates. They are seldom secure, and at all times, especially over rough ice, they make a disagreeable jar and clatter. The travelling and racing skater needs a greater solidarity between the foot and skate than can be supplied by the upper leather of the boot. Experience shows that there is nothing at once so strong, so light, so pleasant and so safe for a long ice expedition as the combination of steel, wood, and leather we have recommended.

The best walking boots are the best skating boots; they should reach above the ankle, and lace up in front. The sole should be wide, to relieve the feet from too great pressure of the straps on the foot. A free circulation through the toes is of great importance in the cold of winter. The heels should be wide and deep enough to receive the full height of the heel screw without its being felt by the heel above it. These boots, however, may be rather lighter than those used in walking and are better without nails or sprigs of any kind. The only thing necessary to convert a walking into a skating boot is to make a hole in the heel with a gimlet for the screw, and this should be made just as far away from the hind end of the heel as the screw is from the hind end of the wood of the skate and rather to the inside of the centre. If the skater has to walk to the ice it is well

to fill this hole with soft bread-crumbs or tow, which are easily removed, so as to keep out sand and small stones.

If the heel hole be made so large as not to take the thread of the screw, the latter acts as a spike only. The skate will not then be fixed so firmly, but the skater will suffer but little inconvenience from this, and the process of putting on and off the skates is so much easier as to compensate for it. Whether the buckles of the straps should be on the inside or outside of the foot, and how far these buckles should be from the mortice which dictates their position on the foot, when fastened, may be left to the reader. Upon these points the opinions of the best skaters differ. All good and fast skaters, however, recommend that the toe or prow of the skate should be placed far inside the mid-line of the foot, so as to pass directly below the ball of the great toe. When the skater has settled for himself these points, he can stereotype them by passing screws through the wood of the skate, so as to fix the strap, and a piece of brass may be let into the wood in front of the sole screws, turned up at the inside end, so as to form a perpendicular scotch, against which the sole of the boot may be pressed. These arrangements save time in putting on the skates, but they are attended with some inconveniences, and may be dispensed with.

In giving these recommendations it has been borne in mind that the skates which a speed skater uses have to meet all the requirements of the adventurous expeditions in which he revels, and which take him over long stretches of ice of various quality, in traversing which he may have to encounter many difficulties, and be prepared for all the incidents of travel. These expeditions resemble the performance on a carefully swept rink about as much as an Alpine ascent does a minuet in a drawing-room. To racers,

who to gain the slightest acceleration of speed are willing to sacrifice convenience, some modifications may be suggested; nevertheless, the skates recommended are precisely those in which George See skated an English mile in two minutes fifty-three seconds at Slikkerveer, on February 17, 1887, which still remains the world's record for that distance. The recent success of Mr. A. Von Panschin and Mr. J. Donoghue, the Russian and American amateurs, seem to indicate that a long blade, which lies almost flat on the ice for eighteen inches, and stretches from two or three inches behind the heel to three or four inches in front of the toe, and is reduced to less than $\frac{1}{16}$ of an inch in thickness, is a good racing type, for both these gentlemen had blades of this description, though in other less essential particulars widely different, and this type of blade is the same as that on which the Norwegian, Axel Paulsen, performed his speed-skating feats a few years ago. Such blades, however, would be disadvantageous over very soft ice, or where sharp turns had to be made, as in the English races.

*Learning to Skate.*—The professors of every art are in the habit of impressing on their pupils that their main difficulties arise from having to unlearn the bad styles into which they have fallen. The instructor in skating is no exception to this rule, even though his pupil submits to his direction from the first, for that pupil has already contracted bad skating habits simply from walking on the firm earth. At his first attempt the novice naturally endeavours to proceed as on land. His feet being parallel to each other, and to his line of *intended* motion, he presses one of them downward and backward and raises the other so as to stride over the ice. As an equally natural consequence, the one foot, finding no resistance, slips backwards from under him, and the other, instead of advancing, has to be dashed down to save him

from falling, which is often not even then avoided. He soon learns, either in the dear school of experience, or by a little thought, that the means of progressing on the ice depend upon two relations of steel to ice: one is, that there is so little friction between them that steel passes over ice with hardly any resistance, and the other is that steel is capable of cutting or indenting ice with its sharp edge, so as to obtain a support and resistance, when the propelling power is directed more or less at right angles to the axis of the skate.

To obtain forward motion, therefore, the toe of the propelling foot has to be turned outward. The inner edge of the skate has to be presented to the surface of the ice, as it naturally will be when the centre of gravity is in front of the point of support, and then the muscular extension of the whole limb, involving hip, knee, and ankle joint, has to be directed outwards from the line of motion. Meanwhile the other foot has simply to be placed in the position for supporting the body, and for running forwards with the least possible resistance, consistent with guiding the body rightly. When momentum is thus acquired, the skater finds that he can propel himself with his foot even when it is itself rapidly passing onward, by the sidelong thrust, and he will soon obtain such power of balancing and guiding himself on the other foot, when his stroke is delivered, that his strokes become long, involving no strain or exertion, and even giving a short interval of rest between each stroke without loss of speed.

The average length of stroke of a good skater is about seven yards, so that in order to obtain great speed the stroke need not be repeated rapidly, far less often per second than in rapid walking or running, although the pace be twice as great as in walking and one and a half times as great as

in running. On the other hand, the sidelong stroke must be delivered with great vigour. The requisite, therefore, of a good running skater is strength rather than agility. Perhaps something may be gained by examining a correct copy of the stroke of a good skater on the ice, such as is here given (Fig. 121), and tracing the varying positions the body assumes as it is formed.

If A B be the line of motion, it will be found that a good skater going at his fastest pace carries his centre of gravity in a direct line above this, but well in front of both feet, which gives him an inclined or stooping posture. At the first part of the stroke, from C to D, the skate, in the case of the left leg, runs on its outside edge, the centre of gravity being thrown over to the left in relation to it, though pursuing a straight course, while the head and arms are thrown so far to the left as to oscillate from side to side, not only of the supporting foot, but also of the line of progress. During the second part of the stroke, D to E, the supporting foot passes under the centre of gravity, and as it does so the outside edge is withdrawn from the ice and the inside edge applied to it. During the third part of the stroke, from

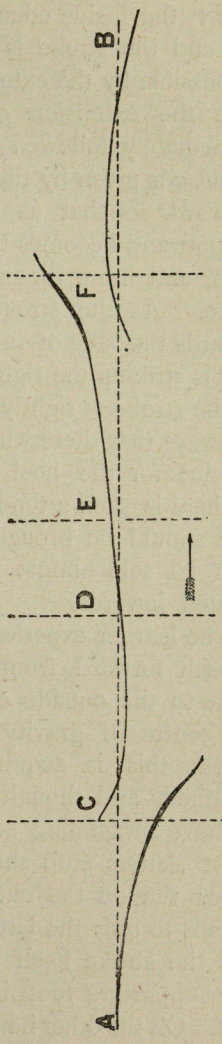



Fig. 121.—A B, line of motion; C D, outside edge; D E, change to inside edge; E F, inside edge.

E to F, the inside edge cuts more and more deeply into the ice, and the stroke is given sideways with as much vigour as possible by the extension of the whole limb, commencing with the extension of the loin and hip-joint, which is immediately followed by that of the knee, and the final impulse is given by the ankle, the whole limb being turned outward, so that as the foot ceases to be the organ of support and becomes that of propulsion, the force is applied more and more directly at right angles to the keel of the skate. As the stroke is delivered, the body is turned towards the side of the striking foot. Thus, while the left foot is striking the right shoulder is foremost, and *vice versâ*. If the stroke is rightly delivered, the thrust will be so much sideways that there will be but little tendency when it leaves the ice for the heel to be raised backward and upward. If there is such a tendency it should be restrained, and the foot should be brought back towards the line of progress with its sole almost parallel to the ice, while the toe is rotated inwards.

The learner experiences great difficulty in freely flinging himself forward from the inside edge of the propelling skate to the outside edge of the supporting skate, so that his centre of gravity is apparently without support; yet, unless this is acquired, no length of stroke will be obtained, and though some speed may be obtained by a short scrambling stroke, sustained speed is impossible. Most skaters stop short of this acquirement, and as they never run on the outside edge, their whole stroke corresponds to only the latter part of the stroke of a free skater, and the stroke itself is delivered with less vigour because the supporting foot is further removed from the striking foot. On the other hand, when this fearless fling is mastered, the resulting stroke is so pleasant that the skater is tempted

to prolong it, and run longer on the outside edge than is necessary. This style of skating produces the Dutch Roll, in which the body inclines very much from the perpendicular to the right and left, and even the centre of gravity oscillates from side to side of the line of direction. The Dutch Roll is very easy and graceful. It combines in some degree the arts and delights of the speed and figure skater. It is well suited to the performance of long journeys without much fatigue, but pace is sacrificed for the sake of getting a longer period of rest in the intervals between the strokes. All the people of Holland, on this side the Zuyder Zee, adopt this method, and as a consequence, while they are good travellers, they have from time immemorial been outpaced by the people of Friesland, whose more direct style very nearly approximates to that which characterizes the fen folk.

To acquire a good style, the child should begin early. A strong child may begin in his, or her, fifth year. Falls are inevitable, and they are best incurred at an age when they are least feared. When a fall is only a joke, the young skater soon adopts the free fling, which fears no fall, and progress is rapid. When a fall is no joke, the fear of it paralyzes all freedom of action. A helping hand may be useful for a day or two, and a chair is often made use of as a means of support, and pushed before the skater as he holds on to its back. The sooner these supports can be dispensed with the better.

When the novice can run alone he derives so much pleasure from the exercise that there is no danger of his abandoning it. When he has learned so to balance himself that he can make his stroke long or short as he pleases, he will find that there is a certain length of stroke suited to the strength with which he can strike out. The greater the vigour of the

stroke of the propelling limb the longer can the body run on the supporting limb without diminution of speed; but there is no use in dwelling on the stroke when the speed begins to slacken. Old William Smart had probably the strongest stroke of any man of the last two generations, and consequently the length of his stroke at racing pace was exceptionally long as compared with other racers. He once raced a man very much inferior to himself under the following condition. The course was marked out into lengths of one chain (*i.e.* twenty-two yards), and he undertook to skate the whole distance making each stroke correspond to this measure. He won his match, but he knew that the conditions were very much against him. If he might have lessened the length of his stroke by one-half or two-thirds, he could have done the distance in much less time.

The advice so often given to young skaters to increase the length of their stroke as much as possible must, therefore, be taken *cum grano salis*. It is sound, in so far as it indicates that he must acquire such power of balancing his body as to run freely forward on one foot without being compelled to bring the other to the ice sooner than it suits him, and must depend for speed rather on the vigour of each stroke, than on a rapid repetition of strokes. The learner will do well to observe the action of good fen skaters. If permitted to do so, he should skate behind them, keeping stroke with them, while they are going at a moderate pace. Imitation is instinctive, and will do more than any attempt to master the theory of skating, which involves more complicated dynamical problems than mathematician ever solved.

Long journeys on the ice give the best practice of all for enabling the skater to gain a good style. In these, while

he is stimulated to make a good pace, he is not so hurried as to distress himself, and so falls into that style which is best suited to his powers and physical conformation. Though all good speed skaters conform to the general method above described, there is almost as much variety in their gait as there is in the flight of the various species of birds.

Some attach importance to the throw of the arms. The arms are usually swung from side to side, so that they are extended to the right side, while the skater is running on his right foot, and are flung to the left just after the stroke of the right foot is fully delivered. No doubt they assist in balancing the body by their swing, and form a counterpoise to the leg whose foot has just left the ice, and so help the centre of gravity to pursue a straight line, though continually shifting in relation to the point of support. It is questionable, however, whether the management of the arms is of much importance or deserves much attention. They are instinctively used as balancers when required, and their motion, being instinctive, will suit itself to the action of the legs, which are the only means of propulsion.

Men who take short strokes use their arms much more invariably than those who take long ones. Mr. Joseph Donoghue, the winner of the two miles' amateur championship of the world this year, told me that he once made the experiment with his brother, who is about as fast as himself, of the one swinging his arms, and the other crossing them behind his back while racing, and they both concluded that nothing was to be gained in speed by swinging them. I noticed, however, in his famous races against Mr. A. Von Panschin, that when he wanted to make an extra effort he unlocked his arms, and swung them for a few strokes. On the other hand, it was evident that Mr. A. Von Panschin,

with his short quick stroke, was obliged to work his arms from side to side with vigour.

To turn in skating is the easiest thing possible. If the skater is gliding forward with both skates on the ice and their keels parallel to the line of motion, the slightest muscular effort will incline them to the right or left of that line, and the direction of the skater is instantly changed by the resistance which the skate offers to any motion other than along its own axis.

The ease with which a skater going swiftly avoids obstacles is remarkable. The faster the pace the greater the precision, and no one who is standing still on the ice or going slowly should attempt to avoid a skater going swiftly by him. The duty of avoiding a collision should be thrown entirely on the swift skater. He will pass within an inch or two of you with perfect safety, unless you suddenly rush in his way. To make a complete turn to the right about without losing much time, and to go round the arc of a circle while still striking, so as to do it in the shortest time, are arts which the racing skater must acquire if he is to distinguish himself in races as they are conducted in this country or on the small rinks of Canada; but they do not much concern this branch of the subject.

To stop suddenly is a matter of some difficulty to the beginner. I have known some skaters, especially among ladies, who, though good skaters in all other respects, have never been able to stop properly.

The general and approved method is by a muscular effort to cause the body to fall, or rather lag, behind the feet, and then to raise the toes of the skates and allow their heels to dig into the ice until the friction overcomes the momentum. This needs some dexterity in balancing, and of course cannot be practised on figure skates rounded at the heels.

Another plan is suddenly to turn half round and place the sides of both skates exactly at right angles to the line of motion, at the same time causing the body to lean over to the side towards which the turn is made. The effect of this is that the direction is not altered, and the resistance offered by the broad side of both skates is so great that the skater is pulled up from the fastest pace in a few inches, or at most, a few feet. Another method, mentioned here only to be avoided, is to turn both toes inwards so as to produce friction against the ice without change of direction. This is almost as ineffective as it is inelegant. The toes have a tendency in this manœuvre to run inwards against each other, and either they or the knees must be pressed against one another to counteract it.

Having acquired the art of speed-skating, the skater has only to inquire in what manner he can get the most enjoyment from its exercise. The answer to this inquiry is threefold, according to taste and temperament: namely by (1) travelling, (2) hockey-playing, and (3) racing. A few words on each of these will suffice.

### Travelling.

When bent on travel the skater should be provided with a gimlet and extra toe and heel straps. A stout stick or bandy is also very useful. It is far better to go in the company of two or three others of about equal pace than alone, and if each of the party carries a strong light cord of five to ten yards long the danger of fatal accidents is greatly diminished if not absolutely prevented. The resistance of the air is so great that fen men prefer to go in long strings one behind the other, the strongest man taking the lead, or each of the party taking this arduous post in turn. A much inferior skater can keep up with his superior if he

skates close behind him, especially if there be a head wind, for he skates downhill if the ice bends in the slightest degree, and he is also relieved from the resistance of the air which the leader has to encounter. The Dutch have further improved on the strategy of this Indian file by carrying a long light pole, which, being held under the arms of the whole company, enables those behind to assist the foremost by thrusting him forward against the wind. In Friesland almost every married couple possesses such a skating staff, and it is a pleasing sight to see each Darby and Joan thus mutually assisting one another over their frozen highways.

Every traveller on skates must be prepared to "rough" it. He must not be discouraged by a little snow or roughness on the surface of the ice. To encounter these difficulties and to have to pick his way along frozen rivers or washes often adds zest to his enjoyment. Roughness such as would completely disconcert a figure-skater is but a slight impediment to a speed-skater, and he will in the width of a river or drain usually find some negotiable track. Very often, when the ice is for the most part encumbered with snow or roughened by slight alternations of thaw and frost, a path may be found near the bank, the water having oozed up from the sides and overflowed the ice since the snowfall. A very slight frost consolidates this thin layer of water, and so gives to the skater a surface of fresh ice with all the security derived from the old subjacent layer. The rise or fall of the water which often occurs in fen drains, and causes the ice to tilt either from the centre to the sides like a house roof, or from shore to centre like a trough, does not hinder the skater, who can skate along a surface which is considerably inclined in the transverse direction.

Hopefulness is essential to the ice tourist. Some of the finest days' skating I have ever known have been those on which I have been jeered at and thought absurd for supposing that there was any available ice. There is, however, one impediment which is most trying to the temper. Sometimes in windy weather, when the ice and land are quite free from snow, a fine dust is blown on to the surface of the ice. On such occasions the skater sees before him a fine stretch of black ice, and promises himself a glorious run, when without warning he finds his foot hanging as though he was forcing it over a blanket. If the skater, going at any pace, comes suddenly on such a surface, neither art nor dexterity can save him from a fall, and even when he has regained his feet and struggled on for a few yards on such earth-strewn ice he will prefer to walk rather than stumble along on such a surface.

These adverse circumstances are, however, exceptional. The usual conditions of a day's trip on the ice are the sun shining on trees silvered with rime; a level surface of black ice, which offers no impediment; keen air, which makes exercise delightful; merry companions in the full flush of health and vigour; and Ely Cathedral or Boston Stump beckoning in the distance. Add to these allurements change of scene, a certain pride and pleasure in the exercise of an art which though fully acquired cannot often be indulged in, and it would be hard to find occasions of greater enjoyment.

It is much to be regretted that the localities suited to travel on skates should in this country be so limited. Our rivers and running streams are seldom so frozen as to give continuous highways. When a frost succeeds a flood, the meadows which border them are excellent skating grounds; but they are generally so severed and crossed by obstacles as to prevent a skater making his way far along a valley.

Canals are more promising, from being generally locked and stagnant, but the desire to keep them open for purposes of navigation often induces their managers to take means for breaking up the ice. Our lakes are for the most part too deep and too much exposed to wind to freeze readily; but on the rare occasions when Windermere and Derwentwater are covered with safe ice, travelling over their surface amidst such scenery must be delightful. Even in a severe frost there is scarcely any locality in which a run of fifty or sixty miles can be counted upon except the Cambridgeshire and Lincolnshire fens. Cambridge, Peterborough, Spalding, Wisbech, and Ely are the natural starting-points for a fen expedition; but the traveller, even when in these towns, needs some local knowledge as to where he is likely to find good runs.

When the water is high, and the rivers which traverse the fens have to carry a good deal of water to the sea, the washes, as they are called, are full and afford the best skating. Three of these vast and shallow reservoirs are worthy of mention. The most northern is called the Cowbit Wash, and receives the overflow of the Welland River. It lies between Peakirk and Spalding. Its lower end, near Spalding, widens and forms a splendid sheet of ice. Next comes the wash which receives the surplus water of the River Nene, and lies between Peterborough and Guyhirn. The most southerly is the reservoir of the River Ouse. It stretches twenty-one miles between Earith at its upper end, and Salter's Lode and Denver Sluice at its lower. It is more constantly flooded in winter than any of the others.

In time of low water skating is first obtained on those great artificial drains which drain the fens without receiving any water from the uplands, of which the Middle Level

Drain, which discharges its water about four miles above the picturesque town of Lynn, is a good example. As the frost strengthens the great main rivers become safe. The "Handbook of Fen Skating," published by Mr. J. C. Hankin, of St. Ives, Hunts, already referred to, contains a map of the fen country, prepared by Mr. Sidney Tebbutt, an experienced traveller on skates, to which is added an itinerary with exact particulars of mileage, the width of the watercourses, and the character of the ice which usually forms on them—such particulars are too elaborate to be given here.

Should the skater wish to pursue his favourite pastime amid foreign scenes, he can do so with the greatest ease, and without the loss of a single hour's skating. Having finished his day's skating on the washes or rivers of the eastern counties, he can after sunset make his way to Harwich, and after a night voyage, in which he may sleep rocked in the cradle of the deep, awake in Rotterdam in time to renew his enjoyment in a country made expressly for this kind of travel. Thence he may make his way by Gouda to Amsterdam, and from that centre proceed in any direction he likes. The countries north and east of Holland are not well adapted to the skating traveller, though they have produced some excellent speed skaters. At or near large centres of population, such as Stockholm, Christiania, and St. Petersburg, long courses are kept clear by sweeping, and these afford good training places for fast skaters; but there is seldom any means of travelling on the ice from place to place in Russia, Scandinavia, or Prussia, because of the depth and persistency of the snow. Now and then, as was the case last winter, there is excellent skating on the chain of lakes around Berlin and Potsdam, which are connected by the rivers Spree and Havel.

From some interesting correspondence I have had with Mr. C. G. Curtis, one of the editors of *The Spirit of the Times*, I learn that New York must be one of the best places in the world for one who delights in skating travel. For, while in Canada, after the snows have set in, the skater is confined to rinks of very limited area, the Hudson River has its skating surface renewed five or six times by the intermittent thaws which periodically melt the snow without destroying the ice beneath it. Mr. Curtis reckons that a man of leisure could obtain on an average in each winter sixty days of good skating on the Hudson, Hackensack, and Passaic rivers. Mr. Curtis's description of his runs on the Hudson are calculated to provoke the envy of the speed skaters in this country, who must be satisfied with fewer days and shorter distances between flat and uninteresting shores.

### Hockey on the Ice.

The only game on the ice for the speed skater worth mentioning is hockey. Curling has its merits, derived from the excellence of the ice, compared with a bowling green, but it is the game rather of frequenters of the ice than of skaters. I have seen cricket played on the ice with the most absurd results. It is a game in every way unsuited to the ice, for the batsman at the supreme moment needs to have his feet firmly planted, whereas a skater is never so feeble as when standing still, and never so firm and powerful as when at his highest speed. The game of hockey is conducted on the same general principles as football, but it is football etherialized. The play is more rapid and brilliant than in any other game. It needs a combined action of eye, hand, and foot, such as is needed in no other sport. A good hockey player threading his way through a whole

field of opponents, and driving the ball under increasing difficulties towards the goal, enables one to realize Scott's description of the knight in the *mêlée* of a tournament better than any other sight. The game should be fully organized to be enjoyed. It should be played on a meadow, or ice area, secured for and devoted to the purpose. Nothing has prejudiced this game so much in the eyes of the public as attempts made to play it on a piece of ice already occupied by other skaters of both sexes who are bent on the quiet enjoyment of their several styles of skating.

I insert the rules adopted by the National Skating Association for the game as played in the fens.

### *The Rules of Hockey.*

DEFINITIONS: The "Field" is the defined area within which the game is played. The "Goal" is the defined space between the goal posts. The goal of either party of players is that which they defend.

Rule 1. Where space allows, the field shall be a right-angled parallelogram 200 yards long by 150 yards wide.

2. The goals shall be opposite and parallel in the centre of the shorter sides or "goal lines," 15 feet wide, between two uprights, with a tape or lath across at the height of 6 feet 6 inches.

3. The number of players on each side shall be 15, including the captain.

[The above rules, 1, 2, and 3, may be modified by agreement, as circumstances may require.]

4. The ball used in play shall be solid, of indiarubber, and not less than 2 inches, or more than $2\frac{1}{2}$ inches in diameter.

5. The bandy or hockey sticks shall be of wood, not more than 4 feet long, and not more than $2\frac{1}{2}$ inches wide in any part.

6. The first choice of goals in every match shall be determined by lot.

7. A goal is won by either side when the ball is passed through their opponent's goal under the tape.

8. The time during which a match is to last shall be fixed beforehand by the captains, and the sides shall change goals whenever a goal is made, or at half-time when a goal has not been previously made.

9. The players shall wear the colours of their side on the arm, and on their bandy or hockey sticks.

10. The game shall be commenced in all cases by the umpire throwing the ball perpendicularly into the air from the centre of the field, and as it descends it is in play.

11. (*a*) The ball must not be carried or thrown, and if caught must be at once dropped upon the ice. (*b*) No player may catch hold of, or intentionally charge or impede an opponent. (*c*) No player may throw his bandy or hockey stick, or use it to trip an opponent, or intimidate him, or strike his stick from his hand, nor may he raise his own stick above his shoulder to strike the ball when any player is within reach.

Any player who violates any of the sections of the above rule may, on appeal to the umpire, be disqualified from playing again until a goal is won.

12. When the ball is struck beyond the side lines the player who sends it beyond the boundary, or a player on his side, must carry it back to the place where it crossed the boundary and at once strike it at right angles into the field.

13. When the ball is passed across the goal line on either side of the goal by one of the attacking players the ball shall cease to be in play, and the keeper of that goal shall have a free hit from any point on the goal line within six yards of the goal. But if the ball is passed across the goal

line by one of the defending players an attacking player shall have the right to a free hit either from the corner of the field or from any point on the goal line not nearer to the goal than forty yards. The free hit shall be from the side of the goal on which the ball passed.

14. Whenever a free hit is allowed, no opponent shall stand within twenty yards of the striker.

15. No player shall place himself within twenty yards of his opponent's goal except in following up the ball.

16. A match is won by the players whose side wins the greater number of goals.

17. In all cases of dispute an appeal shall be made to the umpire, whose decision shall be final.

*The hockey sticks* must be strong and tough, and of the shape indicated in the diagram. Those made of ash are the best. Those made of willow are lighter and more easily obtained, but they will soon wear out or break. The grain of the wood must curve with the curve of the bandy or it is sure to

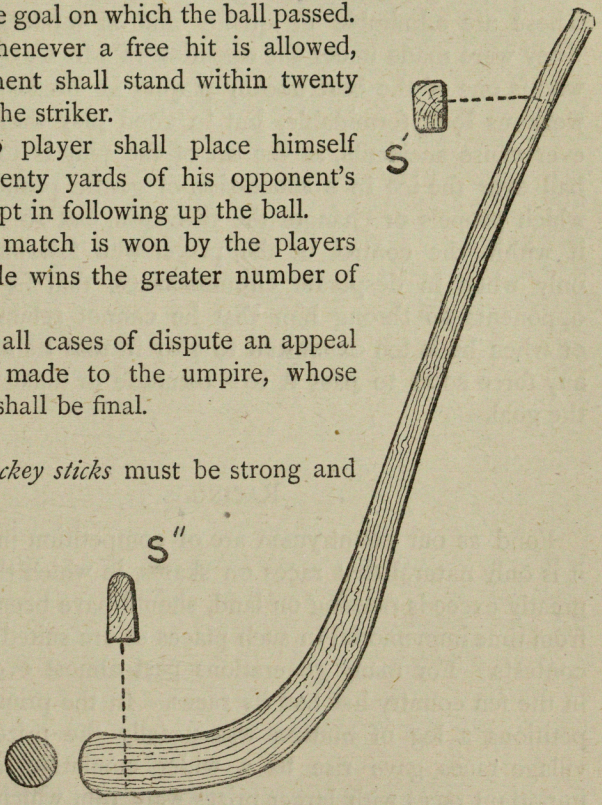



Fig. 122.—Hockey stick.

split, and therefore sticks of the right shape are hard to find in the natural state. Mr. F. H. Ayres, of 111, Aldersgate Street, of lawn-tennis-ball reputation, now makes hockey sticks, giving them their right curve by artificial means. These are admirable in quality and at moderate prices. They were made under the direction of Mr. C. G. Tebbutt, who is one of the best hockey players in England. These weapons look formidable, but in good play they seldom if ever cause accidents, as the art of the play is to carry the ball over the ice in a succession of gentle pushes, each of which propels or changes the direction, but so as to leave it within the control of the player who follows it. It is only when in desperate circumstances, that is, when his opponents so throng him that he cannot retain the ball, or when he is too exhausted to play it, that he strikes with any force so as to pass it to a comrade or make a shot for the goal.

## Racing.

Fond as our countrymen are of competition in athletics, it is only natural that races on skates, in which the pace so greatly exceeds running on land, should have been practised from time immemorial in such places as are suited to skating contests. For many generations past almost every village in the fen country has had its races. In the primitive competitions a leg of mutton was usually the prize. These village races gave rise to a wider emulation, and more important races with larger prizes were run, which attracted the celebrities of many villages to some common centre. Whittlesea Mere was a famous rendezvous before restless ownership drained it and converted a wide reed-margined lake into good wheat-growing land. The pride of a village

was great when its champion became the winner in some great meeting, and often he was presented with a watch or a silver cup to commemorate the event.

These races were run in heats over a course half a mile long, divided down the middle by a row of barrels or other marks round which the competitor had to skate twice, making three right-about turns at the ends, so as to traverse two miles in all. There were usually sixteen competitors, and the first heats consisted of eight races, the winners of which again competed in the second heats, and so on to the final heat, the winner of which was the winner of the whole race. This system of racing is open to many objections, but it produced good races, the results of which were readily comprehended by the spectators, and the management of them was perfectly easy.

Under this system the brothers Drake, of Chatteris; Gittam and Young, of Nordelph; Register, of Southery; W. Smart and W. See, of Welney; distinguished themselves. These last two were in their prime in 1854 and subsequent years, and since then the little village of Welney has produced almost all the best skaters of England. Watkinson had a short innings as champion, when the elder generations of Smart and See had begun to fail, and before the second generation had come to man's estate, and then George (Fish) Smart, nephew of Turkey Smart, asserted his pre-eminence, from which he has been deposed by George See (son of W. See) and James Smart his younger brother.

Until the establishment of the National Skating Association in 1879, there was no distinction between amateurs and professionals, and all the celebrities mentioned were men belonging to the working class, or but little removed from it. The total cessation of agricultural labour and navigation

during a hard frost enabled the men employed in these industries to distinguish themselves in the races, and they have held their own ever since. In cricket the Gentlemen sometimes beat the Players, but amateur skaters have never been able to live alongside the hardy agricultural labourers of the fen. There is no reason why this should always be the case. In Holland trained amateurs have been able in long-distance races completely to outpace the peasants of Friesland. Whether this will ever be the case in England remains to be seen.

The chief objections raised against the old-fashioned method of conducting skating races were the sharp right-about turn at the ends of the course, which occasioned a waste of time and strength, the fact that it only determined who was the fastest skater, the position of all the rest being in some measure due to the chances of the draw, and the facilities it afforded for the competitors to arrange the races. These objections came out in great prominence in the famous international race which took place at Leeuwarden, in Friesland, in 1885. Mainly owing to the energy of Baron de Salis, of Amsterdam, a new system was introduced in Holland, some of whose features have been adopted by the National Skating Association in their championship contests. Thus the races are now decided in two heats. In the first, although the skaters run in pairs as before, the result is wholly determined by time. The four who do the first heat in the shortest time are again paired for the final heats, which are also determined by the stop watch. The course adopted in the international race in Holland is of the shape of a magnet, as seen in Fig. 124, and is divided throughout the whole length of its two straight limbs by a wire, but left open in the semicircle which unites them. The skater who takes the outside course in starting, returns

by the inside course, and *vice versâ*. The course at the Sport Club rink at Amsterdam (Fig. 125) is an improvement on this form, the sides being parallel, and united at each end by a semicircle of considerable diameter, the circuit being nearly half a mile round. It is divided throughout except

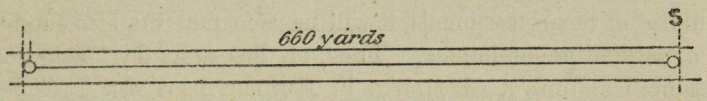



Fig. 123.—English championship course, twice round.
660 × 4 = 2640 yards = 1½ miles.

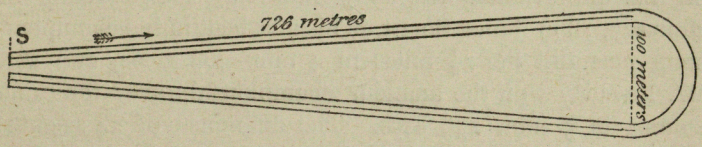



Fig. 124.—Dutch international course.
726 × 2 + 157 = 1609 metres = 1 English mile.

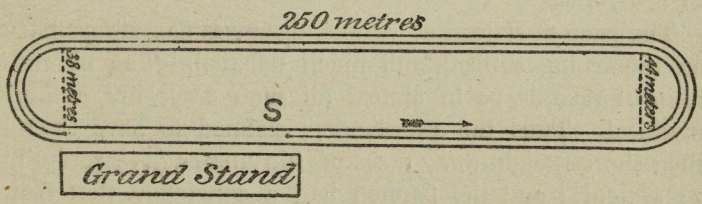



Fig. 125.—Course of the Sport Club Rink, Amsterdam. S, starting-point.
Rather less than ¼ mile in circuit.

at a part where the competitors are required to cross at the half distance of the race. These improvements of the course have not yet been adopted by the National Skating Association in their races. As this association has no permanent racing-ground, these more complicated arrangements are difficult to carry out.

The amateur champions of England since the establishment of that championship have been:

Mr. F. Norman, of Willingham, from 1879–1887.
Mr. R. Wallis, of Thorney, „ 1887–1888.
Mr. W. Loveday, of Welney, „ 1888–1889.

In comparing the best times made by these amateurs with those of the professionals, it will be seen that the latter hold a marked pre-eminence. Thus, on the same day, over the same ice (Jan. 7, 1887), Mr. F. Norman beat Mr. L. Tebbutt in the fastest heat of the 1½ miles amateur race in 5 min. 44⅕ secs.; and G. Smart beat his brother Jarman in the professional race in 5 min. 20⅖ secs. Again, in January, 1889, James Smart, in his first heat in the championship race, did the 1½ miles in 4 min. 56⅘ secs.; and Mr. W. Loveday won the amateur championship over the same course in 5 min. 15⅗ secs. The difference of 24 seconds in the first case, and of 19 in the other, is considerable, not to say excessive, and represents a distance of from 200 to 150 yards.

The pace of skaters at various distances has always been an interesting subject, and much debated. The old traditional records, as in almost all such cases, are entirely mythical. Thus the Frieslanders claimed to have skated their short straight-away races of 160 metres (175 yards) in 11 seconds; and the fenmen had a conviction that their best man could do a mile in two minutes. It is now proved, beyond a doubt, that these estimates are absurdly exaggerated. The following table of some of the most remarkable events which have occurred in recent years, and in which, so far as one can judge, time and distance were accurately measured, will enable the reader to judge for himself:—

FOR THE DISTANCE OF ONE MILE—PROFESSIONALS.

| Name. | Abode. | Time. | Place. | Date. | Nature of course, etc. |
|---|---|---|---|---|---|
| | | m. scs. | | | |
| G. See ... ... | Welney | 2 53 | Slikkerveer | Feb. 17, '87 | Twice round an oval. |
| James Smart ... | Welney | 2 53⅘ | Slikkerveer | Feb. 17, '87 | Twice round an oval. |
| B. Kingma ... | Friesland | 2 54⅘ | Slikkerveer | Feb. 17, '87 | Twice round an oval. |
| MacCormick ... | Canada | 2 58 | St. John's | April 5, '87 | 14 laps to one mile, first mile of 5-mile race. |
| A. Van den Berg | S. Holland | 2 58⅕ | Slikkerveer | Feb. 17, '87 | As above. |
| A. Paulsen ... | Christiania | 3 5⅘ | Hamburg | Jan. 23, '86 | Triangle; about 2½ laps to mile. |
| H. Hagen ... | Christiania | 3 13⅕ | Hamburg | Jan. 17, '87 | Triangle; about 2½ laps to mile. |

AMATEURS.

| | | | | | |
|---|---|---|---|---|---|
| A. Von Panschin | St. Petersburg | 2 58⅗ | Amsterdam | Jan. 9, '89 | Twice round an oval. |
| J. F. Donoghue | Newburgh, U.S. | 3 0⅕ | Amsterdam | Jan. 9, '89 | Twice round an oval. |
| E. Godayer ... | Norway | 3 3⅕ | Stockholm | Feb. 24, '89 | Irregular, about 2 laps to a mile, flying start. |
| J. E. Olsen ... | Norway | 3 5⅕ | Stockholm | Feb. 24, '89 | Irregular, about 2 laps to a mile, flying start. |
| L. Jurrjens ... | Amsterdam | 3 7⅕ | Amsterdam | Jan. 9, '89 | Twice round an oval. |
| L. Tebbutt ... | England | 3 12⅖ | Amsterdam | Jan. 9, '89 | Twice round an oval. |

Mr. E. Godayer is accredited with skating ten English miles round the Stockholm course in 33 min. 21⅕ sec. This is far away the shortest time on record. The performances of the professionials, Axel Paulsen, Harold Hagen, and James Smart coming next, but far behind, this extraordinary feat. The times in which other distances have been done might be given in which the order of merit of the various skaters would in some cases be transposed, but those quoted are rather for the purpose of enabling the

reader to form a general idea of the speed of fast skaters, than to show their relative speed. The fact is, that in any skating race, so much depends on the condition of the ice and the influence of the wind, that records are very unreliable as means of comparison. This makes the actual racing the more interesting as the relative merit of the competitors cannot be discounted. England, the United States, Canada, Norway, Russia, and Holland, all possess, at the present time, speed skaters of remarkable powers; but it still remains to be demonstrated by actual competition which of these is the fastest, so that a treatise on speed-skating is necessarily bare and devoid of those interesting details and adventures which enliven the sport in actual practice, but I trust it may enable the reader to realize these for himself.

N. G.

# APPENDIX TO FIGURE SKATING.

THE following are the tests to be skated by the members of the National Skating Association (Hon. Sec., Mr. Newton Digby, 25, Emery Street, Cambridge) before they can hold first, second, or third class badges.

## THIRD-CLASS TEST.

To skate a large ordinary 3 or 3C on each foot, the ordinary and cross outsides backwards and forwards, and the forward outside figure 8.

## SECOND-CLASS TEST.

In Skating for the Second-Class Test, the Judges must require all turns to be cut clean without scrape, and all movements to be executed in a good attitude. They are to estimate distances on the curve, and not on the chord of any arc.

(*a*) Alternate 3A, repeated three times on each foot, returning to a centre; the length of the curve before the turn being a minimum of 6 feet.

(*b*) Alternate 3C, in like manner.

(*c*) Two turns A, B, C, D, respectively, dwelling on each edge before and after each turn a minimum distance of 6 feet, and on the right and left foot. A and C being taken to a centre, with a minimum distance of 6 feet between the turns.

(*d*) Alternate three turns A, C, to a centre with a minimum distance of 6 feet between the turns.

(*e*) Alternate two turns C, on each foot on the cross outside forwards, at a minimum distance of 6 feet between turns.

(*f*) Alternate two turns D, on each foot on the cross outside backwards, at a minimum distance of 6 feet between turns.

(*g*) The four Q figures A, B, C, D, at a minimum distance of 9 feet for 1st edge, 9 feet 2nd edge, and 9 feet after turn.

(*h*) Forward three. Once back and forward. Once back and forward three. Once back meet, and forward three. Once back and back entire and forward.

Must be skated with another skater.

## FIRST-CLASS TEST.

To Score 100 points from Section A, and to skate the whole of Section B.

### SECTION A.

*One-footed Figures.*

| | Points which may be scored by each foot. |
|---|---|
| Loop A, longest diameter of loop a minimum of 1 foot ... | 1 |
| „ B „ | 2 |
| „ C „ | 1 |
| „ D „ | 1 |
| „ A double „ | 2 |
| „ B „ „ | 3 |
| „ C „ „ | 2 |
| „ D „ „ | 2 |
| Cross-cut A, base, a minimum of 1 ft. | 1 |
| „ B „ | 2 |
| „ C „ | 1 |
| „ D „ | 1 |
| „ A double „ | 2 |
| „ B „ „ | 3 |
| „ C „ „ | 2 |
| „ D „ „ | 2 |
| Four cross-cuts, "Maltese Cross," on any base, a minimum of 1 foot ... | 5 |
| Turn A, cross cut and loop | 4 |
| „ B „ „ | 4 |
| „ C „ „ | 4 |
| „ D „ „ | 4 |

| | Points which may be scored by each foot. |
|---|---|
| Loop A and C connected by serpentine line | 4 |
| „ B and D „ | 5 |
| Reverse Q A ... ... | 2 |
| „ Q B ... ... | 3 |
| „ Q C ... ... | 2 |
| „ Q D ... ... | 2 |
| „ Q A, double ... | 3 |
| „ Q B „ ... | 3 |
| „ Q C „ ... | 3 |
| „ Q D „ ... | 4 |
| (In all the above Q's 12 *at least* must be travelled on each edge). | |
| Continuous Q, 6 in number, each edge a minimum of 6 feet... ... ... | 5 |
| Continuous 8 forwards, 6 in number, diameter each circle of the 8 a minimum of 5 feet ... | 4 |
| Continuous 8 backwards, 6 in number, 5 feet in diameter as above ... | 4 |
| Continuous 8 forwards, with insertion of loop or turn | 5 |

| | Points which may be scored by each foot. |
|---|---|
| Continuous 8 backwards, with insertion of loop or turn ... ... ... | 5 |
| Bracket turn A, 6 feet as a minimum before and after turn ... ... | 4 |
| Bracket turn B „ | 5 |
| Bracket turn C „ | 4 |
| Bracket turn D „ | 4 |
| Bracket 8 „ | 6 |
| Continuous bracket 8, 6 in number, diameter each circle a minimum of 5 feet ... ... ... | 8 |

| | Points which may be scored by each foot. |
|---|---|
| Mohawk C, 12 feet as a minimum before and after each change ... | 4 |
| Counter Rocking turn A, 9 feet changes as a minimum ... ... | 6 |
| „ B ... ... | 6 |
| „ C ... ... | 6 |
| „ D ... ... | 6 |
| Rocking turn A ... ... | 6 |
| „ B ... ... | 6 |
| „ C ... ... | 6 |
| „ D ... ... | 6 |

*Two-footed Figures.*

| | Points. |
|---|---|
| Spread eagle, inside, 60 feet at least ... ... | 1 |
| Spread eagle, straight line, 60 feet at least ... ... | 2 |
| Spread eagle, outside, 60 feet at least ... ... | 3 |
| Toe steps, each variety, 60 feet at least ... ... (Not more than six varieties of toe steps will be accepted). | 1 |
| Single grape vine, right foot leading ... ... | 2 |
| Single grape vine, left foot leading ... ... ... | 2 |

| | Points. |
|---|---|
| Double grape vine, forwards ... ... ... | 3 |
| Double grape vine, backwards ... ... ... | 3 |
| Pennsylvanian grape vine, forwards ... ... | 4 |
| Pennsylvanian grape vine, backwards ... ... | 4 |
| Philadelphia grape vine, forwards ... ... | 4 |
| Philadelphia grape vine, backwards ... ... | 4 |
| Canadian 8, *i.e.*, one foot in advance of the other, forwards ... ... | 2 |
| Canadian 8, backwards ... | 2 |

*United Figures.*

| | |
|---|---|
| Q Scud ... ... ... | 3 |
| Half-Double Scud ... | 3 |
| Three Scud ... ... | 2 |

## SECTION B.

### *Combined Figures.*

Good form is indispensable in the following figures, and the Judges will be at liberty to require them to be done in any order : they must be skated with another person :—

### *Large Single Turns at Circumference.*

1.—Twice back—and forward Three—and forward Large inside Three ; alternate with Forward inside Three.
2.—Twice back—and back Large inside Three.
3.—Twice back—and forward Large Three.
4.—Twice back, back Large Three ; alternate with forward inside Three.

### *Change of edge at Centre by means of Turn.*

5.—Twice back—and forward Three—and forward inside Reverse Q (turning at centre)—and inside forward.
6.—Twice back—and back inside Reverse Q (turning at centre) —and forward ; alternate with forward Three.
7.—Twice back—and forward Reverse Q (turning at centre)—and forward ; alternate with forward Three.
8.—Twice back—back Reverse Q (turning at centre)—and inside forward.

### *Change of edge at Centre by means of Serpentine line.*

9.—Twice back—and forward Three—and forward inside Q (changing at centre) ; alternate with forward Three.
10.—Twice back—and back inside Q (changing at centre).
11.—Twice back—and forward change at centre.
12.—Twice back, back Q (changing at centre) ; alternate with half a forward Eight.

### *Double Turns.*

13.—Twice back—and forward Three turns—and back—and back entire, back two turns—and forward two turns ; alternate with forward two turns.

*Passes.*

14.—Twice back—and forward two turns, pass.
15.—Twice back, back two turns, pass; alternate with half a forward Eight.

*Back Eight.*

6.—Twice back—and back Entire—and back Eight.

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## THE SKATING CLUB.

Gentlemen wishing to become members of the Skating Club must be proposed and seconded by two members of the club, and personally known to one of them. Also, no gentleman shall be eligible as a member unless he be able to skate the forward and backward cross-roll, and a large 3 (turn C) on each foot, to the satisfaction of the committee.

THE END.

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